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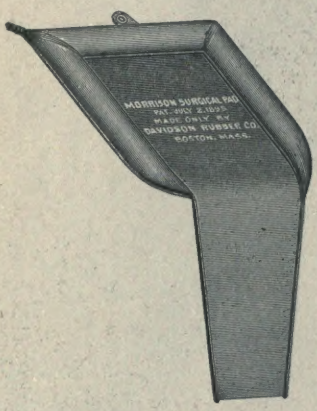

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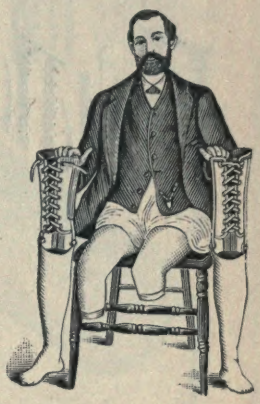

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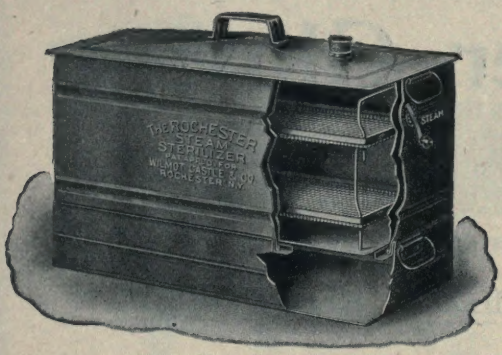

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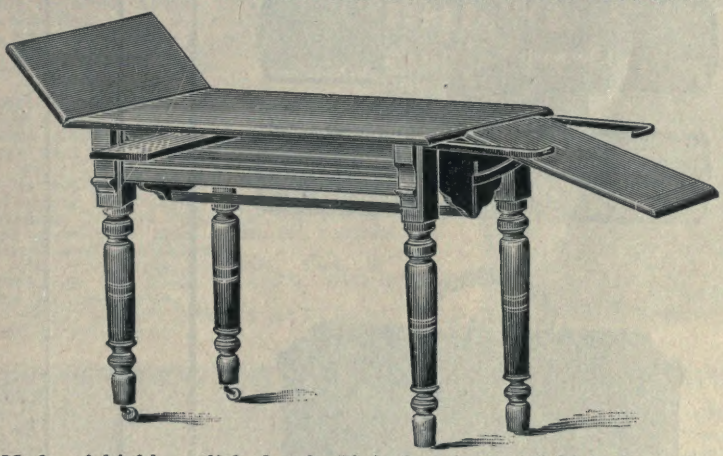

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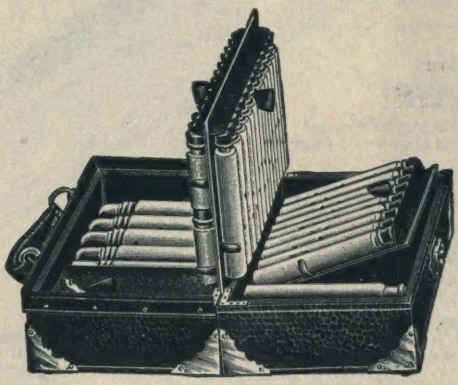

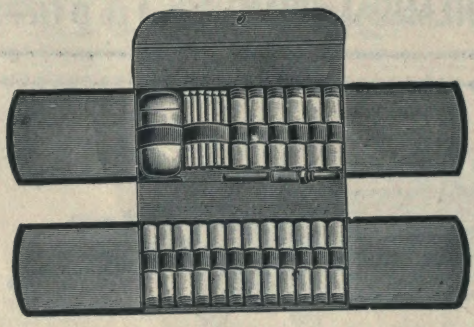

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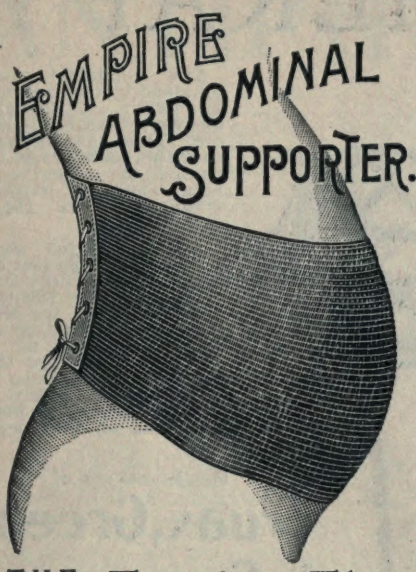

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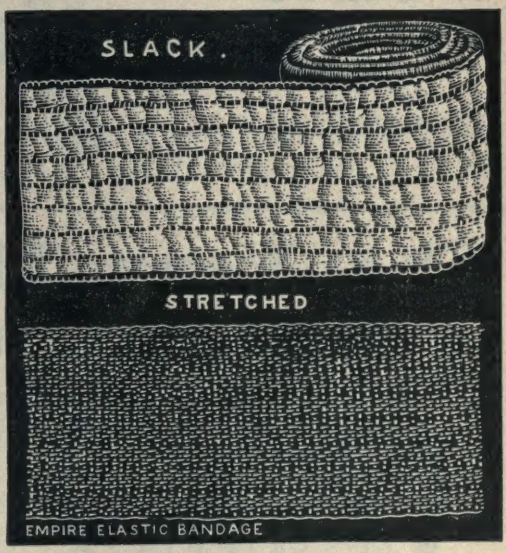

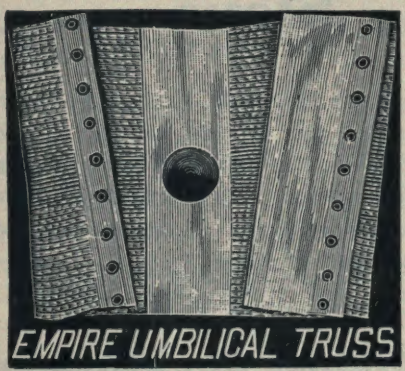

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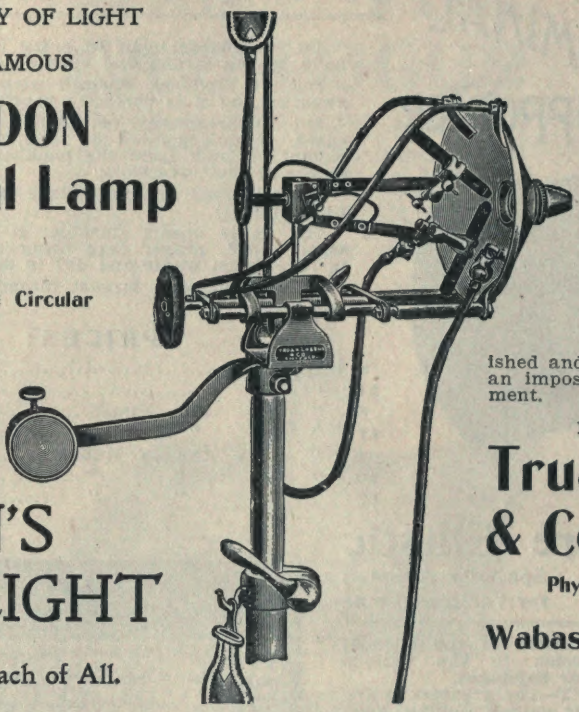

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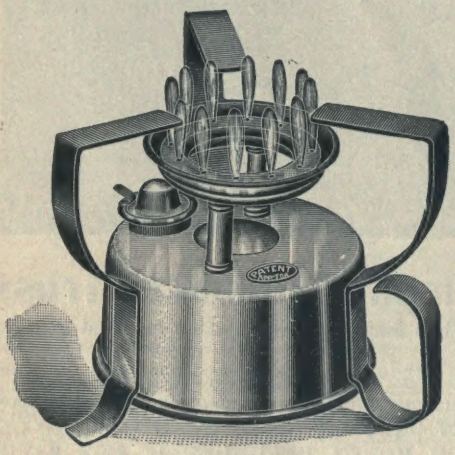

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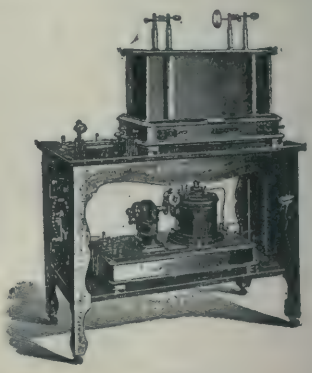

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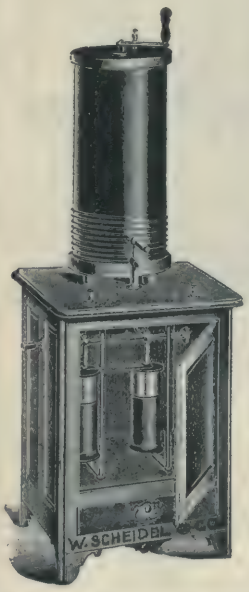

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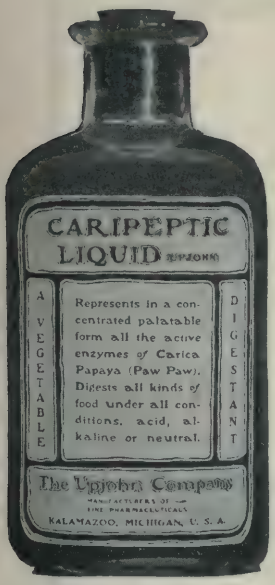
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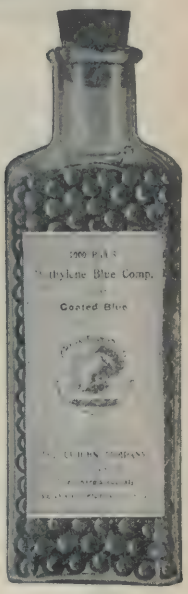

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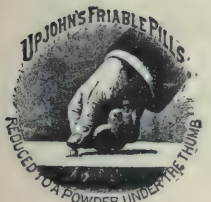

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THE PREVENTION OF TUBERCULOSIS.*

By WILLIAM TIBBLES, LL. D., M. D., L. R. C. P., M. R. C. S., L. G. A.,
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Phthisical people about to marry should be warned of the risk that their offspring may develop the disease. Even if the individuals themselves be free from the disease, their children may develop it, if the stock be phthisical. Scrofulous, tuberculous and superannuated people ought not to be married, or should not, at any rate, become progenitors; healthy, vigorous individuals should not marry cousins or their near relatives; all such alliances are likely to end in the production of children of the scrofulous or tubercular diathesis, with a strong tendency for the development of consumption.

Children born of phthisical parents should be subjected to the same rules of life as a person who exhibits the early signs of the disease, so far as they can be enforced. This is the means of eradicating the inherited tendency to the disease; by fitting their tissues to resist the invasion by *bacilli tuberculosis;* or, rather unfitting them for the development therein of these bacilli.

Tuberculous mothers should not suckle their young; nor should their children be brought up by hand, if this can be avoided. The best means of fitting the infant for resisting the disease in its many forms, for warding off marasmus, tubercular meningitis, struma, scrofula, and diseases of the bones and joints is to provide it with a good *wet-nurse.* The practice of providing motherless infants, or the infant of a delicate woman with a wet-nurse has fallen into desuetude, as other modes of feeding have become fashionable. This is unfortunate, for thousands of children now die or become the subjects of tuberculous diseases, owing to their being *bottle-fed,* who might escape these troubles if they had the milk of a good, healthy, woman. The practice is old-fashioned and there are some arguments against it; but the greatest and most persuasive argument with most people is its expense. A wet-nurse should be subjected to a medical examination; she must not be of phthisical family, nor have any taint of this or any other constitutional or communicable disease.

If the child must be fed by hand, it should have the fresh milk of the cow, goat, ewe or ass, modified to approximate mothers' milk chemically. From six to twelve months of age, the child may have, in addition to milk, a little beef-tea or clear soup, egg or custard; or some of the milk may be thickened with one of the patent foods, or with baked flour, arrowroot or bread. From one to two years of age, porridge should be given for breakfast; the juice of meat, gravy, or clear soup for dinner, the rest of the food consisting of milk and milky foods. After teething is over, the child may have a little finely cut meat once or twice a day, and some bread and butter in addi-

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Detroit, Mich., January 15, 1904.

tion to the other articles. Milk must still be given liberally for a long time, and the amount the child takes at meals should be mostly drunk first; after this, he may have as much bread and butter or potato, meat, or gravy, as he reasonably wants. The child's bread should not be soaked in milk or gravy; he should chew it so that it may be intimately mixed with the saliva, whereby its starchy ingredients are converted into sugar, and more easily digested. But milk may be given freely while the child is eating bread, between each mouthful or two, for more will be drunk so than otherwise.

In childhood, the disease is promoted by every condition incompatible with health to which the system is exposed. The body must therefore be fortified against it by good food and hygienic management. In this period the diet should consist of plenty of meat, soup, eggs and milk, with a fair amount of bread, potato and farinaceous puddings; potatoes should not be taken to the exclusion of other things, but in moderation they are valuable for their starch, and the salts which give them their anti-scorbutic properties. Oatmeal and lentils are valuable, as in addition to their proteid and carbohydrate elements, they are rich in iron and phosphates. It often happens as soon as a child shows signs of tubercular glands, or other such trouble, he is deprived of all bread and potato and dosed freely with cod-liver oil, as though the latter could entirely replace the former, to the patient's great and lasting benefit. Bread and potatoes are not the cause of the deterioration of the organism, nor should they be stopped from the dietary, except in so far as they are replaced by meat, milk, eggs and other nitrogenous foods. It was formerly thought that a diet of bread and potatoes favors the development of the tubercle; and perhaps they do, but only because the diet contains an insufficiency of proteid material; therefore, do not cut them off entirely, but add more nitrogenous food to the diet, as already indicated.

The importance of an abundance of fresh air and muscular exercise for children cannot be too much impressed on parents as preventive measures; it is useless to modify the diet and dose the child with cod-liver oil, if, at the same time it is allowed to sit all day long in a close room or crowded school-room. The school-room must be well ventilated, the school hours not too long, and long evening studies must not be allowed. There must be plenty of out-door exercise in gymnastics, or at least with hoop, skipping-rope or shuttlecock and battledore. The great mischief is that girls give up their exercise too early in life; almost before puberty comes upon them they consider it unwomanly to exercise in this manner; but, as they become too old for their childish games, they must be encouraged to continue to exercise in the open air by a reasonable amount of hockey, tennis, cricket, cycling or riding, along with their brothers, to whom this exercise is equally a necessity. Indeed, to be successful in our object we must definitely prescribe the amount of food and drink, the number of hours to be allotted to lessons, to play and exercise, and to sleep.

There is no remedy which has so well-established a reputation as cod-liver oil, both in the prevention and treatment of phthisis; and there is no remedy which has been more abused. It must be remembered that it is not *every child* of tubercular habit or phthisical descent which is benefitted by cod-liver oil. Physicians are taught by daily experience that instances occur in which a child having a bunch of enlarged glands, and a scrofulous appearance, derives no benefit whatever from it, but is made worse

owing to gastric digestion having been upset, and to that distaste for fat which is so often the harbinger of phthisis. As a general rule, the child which is thick-set, plump, clumsy, lethargic or of slow mental activity is not benefitted by it, even though there are enlarged glands and other signs of deterioration of the organism. But the children most benefitted by it are those who are dark-haired, thin and slender, with a delicate skin which shows the veins meandering beneath it, and a general ethereal appearance; usually they have an accelerated pulse, are quick, sharp, of great mental activity and excitable nature; these are the children that require cod-liver oil and derive great improvement from it. To them it must be administered for months to get really good results; the dose should be small at the beginning and gradually increased to three or four teaspoonfuls daily. The disgust for the oil is soon overcome; children cease to fight against it, and even ask for their customary dose. It is advisable to leave it off now and then for a week or so, otherwise we may induce an unconquerable aversion to it. There are various emulsions, and mixtures with malt extract, which are more palatable than the plain oil; some of these are especially useful; but it must not be overlooked that the oil is diluted to the extent of the articles mixed with it, and therefore a larger dose must be given.

Baths are very beneficial in these cases, and it so happens that the children who cannot take the cod-liver oil with advantage are the very ones who are the most benefitted by bathing, and *vice versa*. Ordinary plain baths have cured many cases of struma and considerably improved the tone of children with tubercular tendencies; but the medicated water baths, such as sea-water, brine-baths, bromo-iodine and sulphureous waters are better. Such baths are really valuable in these cases, and the waters containing these elements are justly esteemed as alteratives and promoters of metabolism; indeed, they enjoy a reputation as great as that of cod-liver oil, both for internal and external use. Where circumstances do not admit of removal to the source of the water, brine-baths and sea-baths can be used at home. The bath may be taken at almost any temperature between 60° to 64° (cold baths) and 100° (hot baths); but from personal experience I consider that nearly cold bathing does the most good.

Phthisical persons, and those of strong phthisical tendencies, should not marry. Phthisical persons should not occupy the same bed or bed-room with a healthy person. There are very strong grounds for belief that this disease is thus transmitted from husband to wife, and that those who continually nurse tuberculous patients sometime become infected. Simple contact or occasionally visiting such patients is devoid of danger, as is shown by the daily experience of medical men, especially of the resident medical men and nurses in hospitals devoted to the treatment of the disease.

A predisposition to consumption was formerly believed to be shown by certain characteristics of the diathesis, of which there are two types:—(a) The dark, beautiful person, of sharp mental activity, nervous and usually thin—the tubercular type; and (b) The fair, coarse-skinned, muddy-looking individual, rather fat, clumsy, and of slow mental activity—the scrofulous type. Undoubtedly these types represent a delicate organization of the body, with tissues little able to resist the invasion of the *bacilli tuberculosis* but a large number of phthisical people could not be classed with either of these groups.

Persons of known phthisical tendency or parentage should be especially protected from the precursors of the disease,

which have so often been observed in these cases, and may be called the predisposing causes. Among these we have to reckon:—

(a). *Wet and Damp.* Such individuals must avoid frequent exposure to wet and damp, which lowers the vitality and predisposes to many diseases. It is especially a combination of cold and damp that is the worst. There is an undue proportion of deaths from phthisis among people who live on damp, or imperfectly drained, or made-up soil. Where a choice of site is possible, delicate individuals must live in a good, healthy district, with healthy surroundings and all sanitary conveniences. It is believed that a sub-soil of sand or gravel is the driest and therefore the healthiest, and this is true, in the main. The situation must therefore be elevated and on a gentle slope, to favor natural drainage, both in surface and in sub-soil. Clay sub-soil makes the house cold and damp by retaining dampness; chalk, on the other hand, is usually dry, but cold because it does not absorb much heat; and made-ground must be avoided always.

There is a common belief that repeated colds are a cause of phthisis. The fact is that many persons with a predisposition to phthisis are frequently the subjects of catarrh. It is therefore highly important that such persons should avoid "catching cold." There is little doubt that a prolonged bronchial catarrh, a catarrhal pneumonia, whooping-cough or even measles will lower the resistance of the lungs, and so lead with other favoring conditions to the deposition of tubercles.

(b). *Deficiency of animal food.* An absence of a due proportion of meat from the diet is one of the most prolific sources of ill-health, and in combination with over-work, worry, and other such things, is a frequent predisposing cause of phthisis. On the other hand, high feeding is a grand means of fortifying the system against the invasion by it of the *bacillus tuberculosis.* In a person of phthisical stock or with a known tendency to phthisis, the feeding should be carried out on the lines indicated upon feeding in consumption which follow.

(c). *The purity of the surrounding air* is a matter of nearly as great importance as the food. Over-crowding, working in close and ill-ventilated rooms, or with the fumes of gas, etc., frequently co-operates with the foregoing as a cause of phthisis. The dust arising from the material in the work-room may produce the bronchial catarrh or the catarrhal pneumonia which is the fore-runner of phthisis. In many trade-processes, gases of an injurious character are evolved and escape into the air which must be breathed by the workpeople engaged therein; but the vast majority of trades are injurious or otherwise in proportion to the amount and kind of dust produced. The long-continued inhalation of dust produces diseases of the respiratory organs, especially bronchitis and emphysema, interstitial pneumonia and fibroid phthisis. A table showing the mortality from all causes among males engaged in dusty occupations in England and Wales may be taken at 1,000; of this, 200 are due to tubercular consumption and 182 to other diseases of the lungs. This can be taken as a proof that pure air, well-ventilated rooms and plenty of space are as necessary as good food; and that the avoidance of impure air, bad ventilation and overcrowding are all-important in the prevention of disease. Besides this, the bacilli of the disease have been obtained from the floors and walls, both of houses and workshops, occupied by consumptive people these must, therefore, be inhaled with the dust.

(d). *Exhausting discharges,* prolonged suckling of infants and frequent child-bearing are among the well-known pre-

cursors of consumption among women, and most certainly require attention.

(e). *Any condition which lowers vitality* predisposes to consumption, and renders a delicate person liable to its invasion; among these we must reckon excessive indulgence in alcohol, sexual excess, syphilis and all other exhausting diseases.

(f). *The milk of cows* for domestic purposes should all be boiled. It is an animal food and for that reason alone it ought to be cooked, but this is also necessary for protection against any chance infection by many diseases; for there are several which can be transmitted to human beings, and it is believed that among them we must reckon bovine tuberculosis. Stall-fed cows are very susceptible to tubercle. It is stated that 25 per cent. of cows kept in town are the subjects of this disease, and even the best bred are liable to it. The milk may not contain it in the glands; but there may be ulcers upon the udders, the discharge from which, laden with bacilli, becomes disseminated in the milk. It is argued that if cow's milk causes tuberculosis in human beings, the disease ought to commence in the bowels rather than in the lungs. Probably a large proportion of the cases of tubercle of the abdominal glands (*Tabes mesenterica*), are due to this cause; but it does not follow that the abdomen must always be the primary seat of the disease, when the infection arises from milk. The disease may begin in the abdomen, brain or lungs, or, avoiding these, the primary seat may be in a bone or joint. *It still remains to be proven that the milk of tuberculous cows does not cause tuberculosis in human beings.* The bacilli in man and cow are identical in appearance, and it has been clearly proved that rabbits, dogs, guinea-pigs, etc., fed with tuberculous cows' milk will become tubercular and if the disease is thus transmitted in animals, why not in children? Indeed, there is strong evidence that it is so transmissible; and further support to this idea is given by the fact that the percentage of children under five years of age who die from tubercular meningitis, ulceration of the bowels and tabes mesenterica is very high.

(g). *The pet animals* of children, guinea pigs, young dogs and kittens, white mice, rabbits, etc., are prone to such diseases and may possibly communicate tubercle to their friends, the children who play with them; therefore, all weakly or sickly animals of this class ought to be destroyed without reserve.

(h). *The flesh of animals* is capable of transmitting certain diseases to man, including phthisis and tubercle; and although these diseases arise more commonly in other ways, it must not be forgotten that such transmission is possible, and that such an origin would be far more common, were it not for precautions taken to prevent the sale of unsound meat, and the additional safeguard in thoroughly cooking all kinds of animal food.

(4). *Not the least danger of infection arises from a person suffering with the disease,* and certain precautions are necessary to prevent his spreading the disease to others. The researches of science show that the patient's breath does not contain the bacilli, but that the phlegm or sputum may be loaded with them. If the patient spits upon the floor anywhere and the sputum is allowed to become dry, particles of dust are formed which float about in the air and carry germs with them, so that the air of a room or other place may become sufficiently impregnated as to be positively dangerous to a healthy person, to say nothing of one who has a predisposition to the disease. The floors, walls and furniture of rooms occupied by phthisical patients become infected by germs; indeed, the bacilli have been collected from such sources,

and experimental inoculation of animals has produced the disease in them. Such experiments explain the frequent occurrence of the disease in a particular house, among the employes of a particular warehouse, manufactory, barracks, or public institution. From these conditions we learn the following means of preventing the spreading of this disease:

Let proper care be taken of the sputa. Just as a consumptive must not swallow his phlegm, because it might be the means of spreading the disease to other organs in his body, so must he be careful not to be the means of distributing the disease to other people by it. Proper spit-boxes, spittoons or cuspidors must be used; they should contain a 5 per cent. solution of carbolic acid or other similar disinfectant. They should be capable of further disinfection by boiling or cleansing with a solution of bichloride of mercury. The patient must avoid spitting except into such receptacles as are described, or small pieces of rag or paper containing disinfectants.

The rooms used by a consumptive must be thoroughly ventilated. There is little doubt that frequent changing of air dilutes the poison, diminishes the number of germs and minimizes the risk of infection from this source.

The clothing, especially the underclothing and the bed-linen, of the patient should be boiled, or at any rate scalded, when being washed.

Thoroughly cleansing the rooms occupied by the patient is also of importance; so that an occasional "spring cleaning" is imperative, disinfectants being used in the process. When a person has died from this disease, the rooms must be disinfected with sulphur or formalin; the paper should be stripped off the walls and burned; the ceilings and cornices must be limewashed, and all wood-work, including floors, should be washed in a solution of carbolic acid, or with carbol soap.

Pre-phthisis. In all these cases of co sumption there is a stage which may b called *pre-phthisis,* in which, before th deposition of tubercle in the organs, the are signs of deficiency and weaknes with some deterioration of the blood, du to anæmia. In these patients, a cours of ferruginous preparations and wate is strongly advised. Such persons mus exercise unusual care to avoid all risk of "catching cold," by wearing flann next the skin. Sudden chilling of th skin is not followed by sickness in a cases, but undoubted examples occur t all physicians , in which the signs of co sumption made their appearance at n very long date after a severe chilling o unusual wetting of the skin. One mus be quite sure that the catarrhal product in pneumonia are quite dried up, or pleu risy quite cured, before the patient is al lowed to return to business, to school, o even to take exercise in the open air. I such conditions the inflammatory pro ducts frequently become degenerated an form an exceedingly suitable nidus fo the growth of the tubercle bacillus.

Rest and change of air. In the stag of pre-phthisis and in the early stage o consumption, patients who have th means, ought, above all things, to throw up their positions in counting-house, of fice, or warehouse, to avoid the over heated, dust-laden atmosphere, even t avoid heated and tobacco-laden club rooms. For, though the exposure of person with a delicate chest to these ba influences may prove injurious to a weak lung and end in consumption, the disease is often promptly arrested and brought t a favorable issue by their careful avoid dance. The patient must remove to district with pure air; avoid work and worry, and lead a quiet life, the benefi cial effect of change of air being equally marked in the working classes. The ob

ject is to obtain a pure, bracing air for many hours daily, without the risk of "catching cold," and without undue strain on the lungs. This may be obtained by a sea-voyage of long duration; residence in certain districts of Colorado, California, the Cape of Good Hope, or New Zealand, or at high altitudes in the Alps of Switzerland. The place should be chosen according to the time of the year, one place being better for summer and another for winter. In less favorable climates there are many especially constructed sanatoria, in which an out-door life is adopted; in this open-air treatment, the patients live as much as possible in verandahs or summer-houses, open to the air, but so constructed that the patients can be protected from wind or wet; this treatment has been especially marked with success in cases of non-feverish phthisis, in combination with over-feeding.

Want of appetite, indigestion, nausea and vomiting are unpleasant symptoms of common occurrence in these early cases and during the course of phthisis; indeed, a catarrh of the stomach, with a distaste for fatty food and a very capricious appetite, are marks of the individual of strumous or tuberculous type, even before physical signs of the disease appear. Due attention must therefore be paid to it; the stomach must be coaxed, indulged to some extent, and medicines given to aid its recovery, promote appetite and encourage the alimentary secretions.

Loss of flesh and strength is the rule. Emaciation is one of the earliest symptoms and may be taken as a note of warning, when a cough of unusual duration has been thought to be due to a simple catarrh, or to be of pharyngeal or gastric origin. This sign must be met by over-feeding. These patients require the richest diet that will agree with them. All food is proper that contains fat or fat-generating and flesh-forming elements; therefore *milk* cannot be taken too abundantly. From four to eight pints a day may be taken. The milk of animals which feed on mountain pastures, as that of ewes or goats, is richer in flesh- and fat-forming substances than cow's milk, and is therefore commendable as a *milk-cure* when patients are within reach of it; but when patients cannot travel to obtain it, they must carry out the milk-cure at home, with cow's milk. *Plenty of animal food* is required, as beef, mutton, lamb, *liver, spleen, sweetbread and kidneys,* fat ham and bacon, game, poultry and eggs. Most kinds of *fish* may be taken, and oysters, either raw or cooked, also *soups* of beef, mutton, chicken or game, which may advantageously be thickened with rye-meal, lentils, pea-flour, bean-meal, barley-meal or rice, and flavored with tomato, celery, onion, etc.: and all kinds of meat essences are valuable.

Puddings, mostly of milk, eggs, with farinaceous substances like oatmeal, hominy, rice, sago, tapioca, vermicelli, macaroni; custards, jellies, trifle, cream.

Vegetables: potato, cabbage, spinach, onions, asparagus, celery, water-cress, lettuce, tomato, beet, parsnip. *Fruit*: grapes, which contain 25 per cent. of sugar, strawberries, apples, dates, prunes figs, bananas, melons and all sweet fruits. *The drink* should be chiefly of fresh milk alone, or with tea, coffee, chocolate, buttermilk, whey; pure water; bitter ale or stout, Bordeaux, Burgundy, wines containing iron, and all sweet wines. Stimulants are not vitally necessary in early cases, and must by no means be allowed to upset digestion. There must be four good meals a day, about four hours apart; the patient should also have milk, milk and raw egg, or custard at least once between the meals, and in the night, if the patient awakes. We must insist that the food is as rich as possible in nu-

triment, and yet as plain in the cooking as is compatible therewith, easy of digestion and abundant. Fats and carbohydrates are as important as proteid food. Whole meal bread is better than white, if it does not irritate the stomach. Oatmeal and maize are valuable, as they contain much fat; lentils, much phosphates and iron; bean- or pea-meal, much albumin; and all green portions of plants, which contain iron and valuable salts. Milk contains all the elements required in the body, but is deficient in iron: cream can be taken by many persons who are unable to take cod-liver oil; it can be given abundantly in tea or coffee, with fruit, or added to other milk, or made palatable by the addition of a teaspoonful of brandy or sol volatile; milk can also be increased in fat by boiling finely shredded *suet* in it. Other persons who object to fat meat may be able to take a larger quantity of butter, which contains the same fatty acids as beef and mutton fat, but less of *stearin* and more of *olein;* it appears to be the stearoptene or stearin in meat which is objectionable to patients. Clotted cream or cream cheese are nearly the same as butter, consisting mainly of condensed cream. *Cod-liver oil* consists chiefly of *olein,* the liquid fat, together with some margarine, palmitin and stearin, and about 5 per cent. of *free acids* which aid in the digestion of the others. Cod-liver oil is commendable as a fat which is easily digested by patients, and is a valuable alterative by virtue of traces of iodine and bromine which it contains; but we must not impress ourselves with the idea that it *cannot be done without;* it increases the richness of the chyle, improves the quality of the blood, but differs from almond or olive oil only in its free acids and salts, and in containing less palmitin and stearin than the fat of butter and meat. We must ascertain that our patients can digest cod-liver oil, and it is contraindicated in gastric catarrh, diarrhœa or hæmoptosis; for its alterative effect it must be taken for months together, and this effect is quite secondary to its action as a food.

Another important matter is the digestion of carbo-hydrate food. In many cases the secretions are defective in amylolytic ferments, and in consequence amylaceous foods, starches in particular are but feebly acted upon. There is no more suitable remedy for this trouble than *extract of malt.* This consists of malt sugar, with some dextrine, albumin and the soluble phosphates of the barley; it is both directly and indirectly nutritive. The sugar or maltose does not give rise to acidity and dyspepsia, like sweets containing cane-sugar; its albuminous constituents are flesh-forming, its phosphates and salts enrich the blood; but above all, it contains among its albuminoids an active ferment, *diastase,* which acts powerfully upon starch in bread and other foods, and converts it into sugar; good specimens of the extract will convert several times their bulk of starch into sugar. Diastase is most active in an alkaline medium, it is therefore better that the extract be mixed in some warm gruel or other farinaceous food, and given just before a meal, or that it be not given until about two hours after the meal when the acid of the stomach is becoming exhausted. It is often made the vehicle for administering cod-liver oil.

Exercise in the open air must be enjoined in all these cases, care being taken to stop short of fatigue; probably *walking* is the best; the respiratory and cardiac activity, as well as that of the general muscular system, is increased by it; riding and cycling may be indulged in; breathing exercises and singing are valuable to a certain degree, as are also gymnastic exercises for the development of the chest. Moderation must be strongly urged, and everything in the way of strain must be avoided; great efforts in

running, cycling, riding, dancing and singing are equally debarred, or we shall surely produce an attack of haemaptysis, bronchial catarrh or such a physical exhaustion as is a prelude to the deposition or extension of tubercle.

The anæmia. Oxygen is necessary for life, and the red corpuscle is the element that carries it all over the body. The less oxygen in the blood, the more powerful are the demands for greater activity in the lungs, hence quickened breathing and dyspnœa. Anæmia is the rule from the earliest stages of tuberculosis, and is due to loss of nutrition. The skin becomes pale and waxy-looking, the mucous membranes pale, the conjunctiva of a pearly lustre; the breathing is quick and more or less difficult on exertion, and there is palpitation, with spots before the eyes, ringing in the ears, or faintness. Amenorrhœa is not uncommon. The treatment is largely by animal food, *red* meat, raw meat juice, red marrow and its preparations, defibrinated blood, spleen-pulp, liver, eggs raw and cooked; oatmeal and lentils, for their iron and phosphates; green vegetables, for their iron-bearing chlorophyll and their salts. It is useless to attempt to *force* the menses; but such drugs as iron, myrrh and aloes, which act very largely by improving the blood and general nutrition, and keeping the bowels clear, may bring about the desired period.

Pyrexia may or may not be present from early days; its presence or absence bears some relation to the activity or otherwise of the disease. When it occurs only occasionally, a few days' rest in bed until it has subsided is the best treatment, or combined with quinine and an acid such patients are not the best for *open-air treatment,* nor do they stand long journeys, even for their health, very well. Pyrexial cases must not be exposed to all weathers, for they run the greatest risk of catarrh and consequent invasion of fresh tissue during the attack.

The mental condition of these patients is usually one of great hopefulness or great confidence in their power of recuperation; even when very ill in bed they believe in their speedy recovery if only they could get rid of their cough.

Finally, our chief reliance is upon the improvement of the body and its tissues in every possible way, so that it may be enabled to resist the inroads of the disease. This indication is best met by pure air, perfect hygienic surroundings, sufficient exercise and abundance of good food.

Nottingham, England.

When Dr. Victor C. Vaughan, dean of the medical department of the University of Michigan, was speaking before the members of the Shiawassee County Medical Society recently, he startled them by remarking that consumption is the most easily curable of any of the so-called serious diseases. He took the view that only the hopeless cases come under the care of a physician, and that when his advice is sought the patient is already so debilitated as to be unable to withstand the assaults made on the system by the disease. His statements provoked a warm discussion, but Dr. Vaughan stuck to his text.

A provision of the Revised Statutes of the United States forbids the use of more than $20,000 at any army post for hospital purposes. This year the medical authorities are desirous of securing a special appropriation of $285,000, to be expended in hospital establishments and enlargement. A modern hospital with 100 beds, to cost $100,000, is wanted at Fort Riley, a 24-bed hospital to cost $30,000 at Fort Totten, N. Y., and improvements at Fort Leavenworth, Kan., Fort Snelling, Minn., and Fort Sheridan, Ill., to cost $45,000, $50,000 and $60,000 respectively.

THE MILK SUPPLY OF CITIES AND DANGERS FROM ITS CONTAMINATION.

By GUY L. KIEFER, M. D.,
Health Officer of Detroit.

The quality of the milk consumed is of the greatest importance to any community. It is daily becoming more apparent to sanitarians and physicians, that a strict attention to the milk supply will greatly lessen the amount of sickness and the number of deaths. This being the case, it is proper that the laity take up the subject and lend their aid in obtaining results so much to be desired. In this, as in all other public health work, it may be said that health officers and health officials can accomplish but little good without help of the citizens among whom they are working.

The reasons for securing an abundant supply of pure milk are so many and so important, that it seems to me to be proper to enumerate some of them at this time:

1. Milk is one of the most common articles of food. Next to bread and water, it is probably more commonly used than any other article of food or drink.

2. Milk is a nutritious, economical, and, with many, a favorite food; it contains, in easily digestible form, representatives of all the classes of nutrients required by the body, viz., proteids, fats, carbohydrates, mineral matter and water.

3. Milk is usually used in the raw state. Unlike other foods, it is seldom cooked, by which process dangerous bacteria would be destroyed.

4. Impure milk may cause serious and even fatal diseases. Frequently cow's milk is the only nourishment taken by infants and invalids, and it is these who are least able to withstand the ill effects of impure foods. Vital statistics show that about one-third of all deaths are of infants, and that a very large percentage of these die from diseases of the digestive tract. As these diseases are due principally to impure food, it will be rea ily seen that an improvement of the mi supply would greatly reduce this ve large mortality.

Epidemics of various diseases ha been definitely traced to infected mil In an article published in the *Americ Journal of Medical Sciences*, May, 19c Dr. George M. Kober, professor of h giene of the medical school of Georg town University, Washington, D. C gives a resume of 330 outbreaks of i fectious diseases, spread through the mi supply. Of these, 195 were epidemics typhoid fever, 99 were scarlet fever, a there were 36 outbreaks of diphtheria.

5. The quality of milk cannot be easi detected by its appearance. It is possib to tell something about the quality most foods by their appearance, but th is not the case with milk. Even expe dairymen are liable to be greatly mi taken in their opinions, based entirely c a simple inspection of the milk.

With these and many other reaso staring us in the face, it is surely th duty of health officials, sanitarians, an indeed, of every intelligent citizen, t work for an improved and wholesom milk supply. Now comes the questio how is this to be accomplished? It a great problem, and one the solution c which requires considerable thought an work. There are two general forms c contamination that may be added to pur milk, viz., chemical and bacteriologica Chemical contamination may be due t the fact that the cows are poorly fed, an poorly and filthily kept, and on this ac count the milk may be of an inferio quality; it may contain an unusually lov percentage of fat, or the milk may be de liberately adulterated with water. The again, it has been found that certai

drugs or chemicals have been added to milk, to act as preservatives in the warm weather, the principal ones, most commonly used, being salicylic acid and formaldehyde.

Bacteriological contamination is of greater importance than what I have chosen to term chemical adulteration, and may be due to a number of causes. To begin with, milk is an excellent culture medium, that is, it offers a very fertile soil for the propagation of these minute vegetations, the bacteria. Now, if the bacteria are of a specific kind, if, for example, they are the germs of typhoid fever or consumption, such milk may be the direct conveyor of these diseases. On the other hand, the bacteria may of themselves be of a much less harmful variety and yet their presence in the milk in very large numbers would render it unwholesome and unfit for use. It is a very difficult and, under some circumstances, an impossible procedure for the bacterioligist to isolate in a given sample of milk the specific organism of specific diseases, but it is comparatively easy for him to tell us the whole number of bacteria contained in a small quantity of milk and in this way give us a comparatively accurate idea of the wholesomeness of the milk. In New York, considerable attention has been paid to this matter and a commission, known as the Milk Commission, of the medical society of the county of New York, after a careful investigation and thorough study, reported that in their opinion, milk containing more than 30,000 bacteria per cc. (about 20 drops), was unwholesome and should not be sold. In Philadelpnia, the standard established by the Milk Commission of the Philadelphia Pediatric Society is even higher; they require that milk shall not contain more than 10,000 bacteria to the cc.

Let us now consider for a few moments some of the sources of this bacteriological contamination. Generally speaking, when milk contains a very large number of bacteria, it is dirty, and this addition of bacteriological dirt, so to speak, may be traced to a number of sources from the time the milk leaves the cow until it reaches the consumer, or let us say, more specifically, the drinker.

Among the sources alluded to above, I would enumerate the following:

1. The stables.
2. The cows.
3. The milkers.
4. The milk utensils.
5. The process of cooling.
6. The vendors.
7. The tickets.
8. The nursing-bottles.

The condition of the barn may be greatly improved by close attention to cleanliness. Sources of dust and dirt should be removed, the floors should be kept clean and windows washed. Unclean manure gutters, excessive bedding, cob-webs on walls and ceiling, and loose boards are other factors that tend to add to the number of bacteria in the milk, and should not be overlooked. How important the condition of the barn is as a germ-producer may be seen from the following experiment, which was repeated by the commission of the county of New York, above referred to, twenty times in various localities, and always gave similar results. A cow was milked in a dirty barn, and an examination of the milk showed 120,000 bacteria to the cc. At the same day and hour, another cow, in the same apparent condition, was milked in the adjoining pasture, away from the dust of the barn, and the milk in this case showed only 26,000 bacteria.

Much dirt and many germs get into the milk from the external condition of the cow. The udders and the tails should be kept clean. A great reduction in the number of bacteria can, no doubt, be obtained by attention to these details.

The milker himself is a source of con-

tamination. He should be cautioned to clean his hands and clothes thoroughly. A good precaution would be for the milker to wear overalls during his work. He should, of course, never be allowed to come into contact with communicable diseases.

The utensils include pails, strainers, stationary vats, portable vats, bottles and cans. These should all be kept scrupulously clean, and especially the cans and bottles. Through these as sources, it seems to me communicable diseases are most commonly spread. The cans or bottles are most apt to be handled by persons who have been exposed and thus the milk becomes infected with a specific germ.

The process of cooling has been found by investigators in this line of work to be one of the most important factors in the production of uncontaminated milk. The sooner it is brought to a temperature at or below 45 degrees F., at which point the growth of bacteria is greatly inhibited, the better.

The vendor, the milkman who takes the milk from house to house, is a dangerous agent of infection. It is through his agency that many an epidemic of scarlet fever has been innocently spread. He delivers milk at a house where there is a case of scarlet fever, so mild, perchance, that it has not been recognized. He comes into contact with the patient directly or indirectly, his hands are infected, and straightway this infection is carried to the milk.

The tickets as a source of contamination are often overlooked, and yet there can be no question that they may carry the disease germs. It is a well known fact that the infection of scarlet fever, whatever it may be, is very tenacious and adheres particularly to clothing and books. Is it not easy to conclude that small pieces of cardboard, which have been handled by persons ill with a given disease, may transmit it? In fact, a number of cases of scarlet fever in Detroit have been definitely traced to this source.

After the milk has been delivered to the consumer, it is again subjected to a number of possible ways of contamination. The most important of these, and the one which has been specified above as a source of milk contamination, is the nursing-bottle, or, more properly speaking, the device sometimes attached to the bottle as a nipple. I have heard these devices, with their long tubes attached, referred to as "baby-killers," and have always considered such an appellation a very suitable one.

Having determined the sources of trouble, how shall we remedy the evil? It will be necessary first of all to collect samples of milk, in order to determine its condition. Whenever a sample is found upon chemical analysis to contain less than 3 per cent. of fat, total solids less than 12 and one-half per cent., watery fluids more than 87 and one-half per cent., and a specific gravity below 1029 or above 1033, such milk should be condemned: and again, if the chemist finds that the milk contains an adulterant, it should be condemned. In most cities of any size, the above requirements are observed, and a chemical analysis of the milk is made, but no attention has been paid to the bacteriological examination until very recently, and yet, as we have seen, the latter is the more important. In Detroit, milk samples have been collected and the milk analyzed chemically ever since the establishment of the board of health under the present law (1895), but the practice of the bacteriological examination has been established only within two years. We have put our standard at 100,000 bacteria per cc. In other words, milk containing more than that amount must be either more carefully handled to reduce the number, or it should be condemned.

In order to overcome the danger of contamination from tickets, the Detroit Board of Health has passed a rule making it illegal for "any vendor, dealer, or distributor of milk to use more than once any milk tickets, check or other device distributed or sold to his customers," and, to control as far as possible the addition of bacteria by means of improper devices attached to nursing-bottles, the Board of Health has enacted that "no person or persons engaged in the care of nursing infants shall use or cause to be used as a nipple attached to the nursing-bottle, any device except an ordinary, close-fitting, soft rubber nipple."

The work of improving the milk supuly of a city as outlined in this paper, may look comparatively easy, but its execution involves so many details that it becomes most difficult and can be accomplished only with the aid and co-operation of the laity. A large number of milk producers and milk dealers would correct the unsanitary conditions about their premises, if they realized the existing dangers. It is the duty not only of health officials, but of the laity to instruct them.

If every one employed in the business of handling milk will learn to be exceptionally and scrupulously clean in every detail, the results will be apparent to the bacteriologist in the milk he examined and to us in the reduction of the amount of sickness and the number of deaths.

Board of Health Offices.

Following closely on the dictum of a Chicago physician that bathing is not only useless, but positively unhealthy, comes the announcement from New York that the warm water bath has been tried with success in the treatment of several violent forms of mania. The Manhattan State Hospital for the Insane, on Ward's Island, is the scene of the new treatment, which is extremely simple. The patient is placed in a bath-tub of warm water, the tub resting on a mechanically agitated frame, which imparts a slow rocking motion to the tub and its contents, aqueous and human. A temperature of 99 degrees is maintained and the water is constantly, changed. Treatments of varying length are given, and the results are said to be most happy.

A report made by Dr. W. F. Morrow, secretary of the State Board of Health of Missouri, shows that there are 719 licensed practitioners of medicine in Kansas City. This is supposed to be the banner town for physicians in Missouri, and we doubt if many cities of the country show a higher ratio of physicians to population.

At the recent meeting of the American Public Health Association held at Washington the committee on vital statistics reported that effective co-operation had been instituted between that Association, the Conference of State Boards of Health, the American Medical Association, the United States Census Bureau and the United States Public Health and Marine-Hospital Service for the improvement of the vital statistics of this country. Among the objects sought are the extension of adequate methods of registration, the use of uniform and comparable tables and rates in bulletins and reports, and the improvement of the international classification of causes of death. A pamphlet on "Statistical Treatment of Causes of Death" has been issued by the United States Census Bureau, requests for which should be addressed to Mr. W, A. King, Chief Statistician for Vital Statistics, Census Bureau.

It has special reference to the difficulties encountered in compiling deaths returned from several causes, and asks for the co-operation of the profession in framing a thoroughly satisfactory method of procedure in such cases.

ACUTE GASTRITIS.*

By W. M. HARVEY, M. D.,
Detroit, Mich.

Gentlemen:

In selecting my subject for this evening, "Acute Gastritis," I endeavored to select one that would be of interest to all branches of medicine.

Acute and chronic catarrh of the stomach are encountered with extraordinary frequency in practice. It would appear that the diagnosis of these conditions is very easy; as a matter of fact, however, it is quite difficult. If we look carefully, we will find, in the majority of cases, we are dealing with a varied array of dyspeptic symptoms that are seen in many different diseases of the stomach. Again, many are in the habit of diagnosing gastritis by exclusion, from negative evidence, from the absence of symptoms indicative of ulceration or malignant processes, etc. If the latter can be excluded, most physicians feel justified in assuming that dyspeptic symptoms are caused by gastric catarrh.

It would be better if we would all consider positive evidence alone, and would diagnose gastritis catarrh only in those cases in which a sufficient number of positive symptoms can be discovered.

Acute gastritis may be either a primary or independent disease, or it may be a secondary condition following or accompanying other diseases of the stomach. In the majority of cases the direct irritant, mechanically, chemical or thermic injures the mucous membrane of the stomach and causes the inflammation.

One should be very careful not to diagnose every temporary gastric disturbance as acute gastritis, nor a prolonged loss of appetite with eructations, coated tongue and no other signs and symptoms as chronic gastritis. This affection is dependent upon somewhat varied etiological factors. Among these are:

Over-indulgence in eating.

The ingestion of food or drink of irritating quality or of abnormal quantity.

The former includes very hot, cold or indigestible food; undiluted spirits, or too much of diluted spirits.

Too free use of spices, and drugs of certain kinds.

Any of the above will start an acute case of gastric catarrh through their irritant action on the mucous membrane.

In my short experience in this line of work I find the excessive use of alcohol the most common cause.

Again, gastritis may be of an infectious origin, due to the action of micro-organisms or their toxins. In acute gastritis we will find that there is a great diminution of hydrochloric acid and in the pepsin and other ferments, and mucus in considerable quantity appears as a result of mucoid degeneration of the columnar epithelial cells. There occurs redness and swelling of the mucosa and of the sub-mucosa. In more severe forms there are small hemorrhages.

The functions of the stomach, the secretory, the motor and the absorptive, are all affected.

Immediately after an indiscretion of diet, there is experienced a feeling of heaviness at the pit of the stomach and, later on, a sensation of fulness, formation of gas, and a desire to belch and doing so is both difficult and painful, but the patient is relieved after accomplishing it, for a short time, but soon the same sensations return. This condition may continue for some days and then disappear.

Again, we may have more severe and alarming symptoms. At first we may

*Read before the Wayne County Medical Society, December 14, 1903.

have nausea, a sensation of weight, and pain in the gastric region, severe headache and rise in temperature, later on vomiting, extreme anorexia, constipation and diarrhœa. The gastric region appears bloated and is sensitive to pressure. The tongue is thickly coated, tastes and seems sticky. If vomiting occurs, the ejected matter contains no free hydrochloric acid; it is of a slightly acid, neutral or alkaline reaction and is generally mixed with a great deal of mucus.

The inflammatory process of the stomach not rarely extends into the intestines, and there causes constipation or diarrhœa. The infection may also invade the gall-bladder. The duration of the affection is, as a rule, short, from two days to a week. The more severe cases begin with a sudden rise in temperature and may be accompanied with chills. In such cases the gastric symptoms may be less marked than those caused by the fever. But, in a short time, the gastric symptoms become more pronounced.

In the treatment of acute gastritis it is a hard matter to lay down a prescribed course, as nearly all cases require slightly different modes of procedure. The chief therapeutic indications are: Removal of the existing cause, checking the gastric irritability and giving complete rest to the diseased organ. The first is met by the evacuation of the stomach contents. Should emesis not occur, and, if occurring, not enough to empty the stomach thoroughly, the patient should be induced to drink a large amount of warm water (from a pint to a quart) containing sodium bicarb. or salt. Vomiting not being incited in this manner, or, after emesis, continuance of the local symptoms indicating that the stomach has not been thoroughly emptied, then resort to the stomach tube. With the tube all the stagnating ingesta can be removed, after which a thorough cleansing of the mucous membrane can be accomplished.

To cleanse the stomach, I should advise the use of hot water (say 100 degrees) with, at first, the addition of sodium bicarbonate ʒ ii to O ii. After the wash water comes out clear, use an antiseptic, such as boracic acid, or permangamate potass.

Subsequent to the complete evacuation of the stomach contents, I think a laxative is indicated, and I prefer calomel given in one dose of from five to ten grains, in combination with sodii bicarb.; if vomiting occurs soon after taking it, it should be repeated. A saline laxative, such as magnesium citrate or sulphate, should be administered in from 6 to 8 hours after.

Following the evacuation of the stomach contents, if the gastric trouble continues, it is best controlled by the withdrawal of all food for a short time and an application of counter-irritants or small blister to the epigastrium.

If the gastric pain still continues sulph. codeine in ¼ grain doses every three hours will control it, or at least in a great majority of cases.

With the exception of the few drugs named, no other medicines are necessary. The patient should be kept in bed and the diet should depend on the severity of the case. After the gastric disturbances have subsided, a very light liquid diet, such as milk, barley, oatmeal, rice and chicken soups, then, after twenty-four or thirty-six hours, if the patient's stomach retains the diet, he can have a soft boiled egg, toast, scraped meat, baked potatoes, tea or cocoa. He should have at least four meals a day, and the quantity of nourishment taken at each meal should not be too large or too small.

The patient having been on this diet for a week or ten days, the diet should be changed to correspond as nearly as possible to the usual mode of living. Nearly all vegetables should be given in large portions and meats should be some-

what limited. I find the best method is to tell the patients the things *they should not eat*, such as meats with tough fibre, meats that have just been killed, also with too much fat; lobster, salmon, chicken salad, pork and sausage, cucumbers, pickles, cabbage and strong alcoholic drinks.

It must be impressed on the patient to masticate his food thoroughly and eat slowly and not have his mind occupied with business during meals.

Besides the diet, it is very important that the patient lead a rational hygienic life; the business hours should not be too long and he should take plenty of exercise, such as walking to and from business, or at least part of the distance. Horseback riding, or the use of some of the various machines for exercising in his own home, are beneficial—but the out-door exercise is preferable.

270 Woodward Avenue.

A recent bulletin of the Chicago Board of Health shows that pneumonia is making a fearful name for itself in that city. In the space of six weeks there were 1,128 deaths from pneumonia, and the season of heaviest mortality was still expected. In a single week, there were 139 deaths from this cause, or 27 per cent. of the city's total mortality. In general, the disease may be said to be on the increase, and to an alarming extent, all over the country. There is already strong talk of inaugurating a crusade against it, and figures from all the large cities show the need for such action. The city Health Board of New York has already ordered that cases of pneumonia must be reported at once by the attending physician. New York had 820 cases in the five weeks ending December 26, an increase of 43 per cent. over last year.

Chattanooga, Tenn., is to be the home office of a new medical publication, under the title, "Southern Medicine." It will be edited by Dr. Raymond Wallace, and Dr. B. F. Travis will be the business manager. The publication will be the official journal of the Tri-State Medical Society, embracing Tennessee, Alabama and Georgia. We extend to the management our best wishes for the entire success of the new-comer into the field of medical journalism.

A justices' court decision in Columbus, Ohio, is of general interest to the medical profession. An oculist of the city recently sued the father of a patient for his bill, and the contention of the defendant was that the oculist had exceeded the terms of a contract made with him at the time of the first treatment. The oculist set up the contention that he had completed the terms of the original contract to fit the patient with glasses for a specified sum, but that complications requiring treatment had arisen subsequently. These were treated without any specific understanding with the patient's father, and the patient visited the oculist for six months. Justice Andrews held that the fact that the patient returned to the office of the complainant for treatment justified the latter in expecting payment for his services. Suit was brought for $41, and the jury found for the complainant, allowing him $30.

A dispatch from Ottawa, Ont., announces that Hiram Walker & Sons, of Walkerville, have sent a check for $10,000 to Mr. J. M. Courtney, treasurer for the Lady Minto Hospital Cottage Fund. The fund will be used for securing isolation hospitals of small size, on the cottage plan, for those suffering with contagious and incurable diseases, and for the modern treatment of consumption.

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PRACTICE AND THERAPEUTICS

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Practical Preventive Medicine.

The practical application of preventive medicine by municipalities and states is as yet in its infancy in our country, hampered by inadequate legislation and the unwillingness of a taxpaying public to contribute sufficient funds for self-protection until confronted by an emergency. We are taxed to support hordes of unnecessary office-holders from the government offices at Washington down to every city and county in the Union, while a howl goes up from press and people alike at an annual appropriation of say a hundred thousand dollars to safeguard the public health of a city of half a million people, or 20 cents per capita.

Nearly all epidemic disease would be preventable by a non-political department of public health, granted sufficient authority and money.

The present typhoid outbreak at Butler, Pa., is a disgrace to the city and to the commonwealth of Pennsylvania, because with proper oversight of the water and milk supply such epidemics could not occur. Detroit has had over 1,000 cases of small-pox in the past year, attributable almost entirely to the neglect of that simple prophylaxis, an early general vaccination.

No crime is greater than that neglect which endangers the lives of thousands, no censure too severe for that parsimonious policy shown in so many American cities which fail to utilize practical preventive medicine by reason of the expense involved.

Tuberculosis, the white plague, numbers its victims by the thousands and the medical world hopes continually for an efficient means of cure therefor; but typhoid, scarlet fever, diphtheria, infantile diarrhœa and other diseases of filth and sanitary neglect, all preventable, claim a death-roll larger yet.

We need first of all in this, our country, a National Board of Health, with sufficient power to supervise and systematize the work of State Health Boards, each of which, acting under national supervision, should have absolute authority in public health matters, backed by the entire police power of the state.

We need uniform methods of procedure, whereby the water and milk and food supply—of every village and city—may be daily safeguarded instead of, as too frequently at present, being obliged to fight disease after the infection is wide spread.

The existing food and milk inspection by the State is inefficient, hampered both by weak laws and the exigencies of partisan politics, while there is no water inspection worthy the name in any state, to our knowledge. Every water supply except the deep driven well is liable to contamination, and until the State maintains a laboratory where obligatory analysis of all water used for municipal drinking purposes is made at least weekly, typhoid will continue to scourge the nation. We need also the absolute divorce of public health matters from the domain of politics, in village, city and

state. Sanitarians and their co-workers who are well trained and efficient should be beyond the reach of aldermen, mayors and governors who have "axes to grind."

Then an adequate but definite appropriation for the prevention of disease should be carried in every tax levy, placed freely as needed at the disposal of the men charged with the responsibility of enforcing sanitary laws in the interests of public health.

Reorganization of the Profession.

We watch with interest the sometimes varying, but generally uniform success, attending the gradual adoption of the A. M. A. plans in various states, hopeful of the ultimate consummation so devoutly to be wished. Already the movement has greatly increased the State Society membership wherever adopted, and strengthened the influence of the profession everywhere. The integral County Societies, in the main, are doing good work, and unity prevails in many communities where professional harmony was once "unloved and unsung." The lion and the lamb are lying down together and two by two several of the other types making up our heterogeneous profession are entering the ark; and yet we see far too many taking to the woods in fright or indifferently looking on from the fancied shelter of the neighboring bushes. Some, too, who would enter have not the pass-word or dread the searching scrutiny of the door-keeper whom Father Noah has placed in charge. Far be it from us to decry the seeming necessity for a custodian and keeper of the seals, but we venture to hope that since "Justice is blind" our door-keeper may prove as myopic as possible.

Seriously, we need ever to keep in mind that "reorganization" will not be a complete success until practically every reputable physician is a member of his County Society; and yet we are far from attaining that desired end. Possibly the problem is easier in sparsely settled communities, but in every large city there are many who have not yet availed themselves of the advantages offered by the County Society, who belong to no medical society whatever, and never have. The Chicago Medical Society, perhaps the most energetic of any large society, under the new regime has succeeded in reaching but about 60 per cent. of the eligibles. In Detroit, we cannot claim even that modicum of triumph.

How can this indifferent body of men be reached? We offer no panacea in the suggestion of energetic effort, active and sustained on the part of every one, be he officer or private, interested in the welfare of his profession.

Away with the pessimistic conservatism which is satisfied with partial success and the indolent spirit of the "Weary Willie," constitutionally afraid of work.

These men must be reached mainly by individual effort and shown both that they need the Society and that the Society needs them. The expense of membership is nominal, the returns are large. In time, the larger societies should be able to offer a Medical Defence Fund as an additional inducement to the men who cannot see where they get the worth of their money.

Strange how much larger a legal tender note looks when paying for medical societies (or even medical Journals) than when buying cigars! !

EDITORIAL NOTES.

A gathering of medical men, quite out of the ordinary in point of interest and educational value, will be held at St. Louis, Mo., from September 19 to 24. 1904, when the departments of medicine

in the congress of Arts and Sciences will hold their sessions. Out of the twenty-four departments of the Congress, two are devoted to medicine, and the best known men of the medical profession of the world will be present to deliver addresses on their specialties. A partial list of the speakers, and their subjects, follows:

Comparative Anatomy — Fuerbringer, of Heidelberg, and Delage, of Paris.

Human Anatomy — Waldmeyer, of Berlin.

Physiology—Engelmann, of Berlin.

Preventive Medicine—Celli, of Rome, and Ross, of Liverpool.

Pathology—Marchand, of Leipzig, and Orth, of Berlin.

Therapeutics—Brunton, of London.

Internal Medicine—Allbutt, of London.

Neurology—Erb, of Heidelberg.

Psychiatry—Ziehen, of Halle.

Surgery—Kocher, of Bern.

Gynecology—Richelot, of Paris.

Otology and Laryngology—Semon, of London.

Pediatrics—Escherlich, of Vienna.

In departments allied with medical science, the following eminent specialists will be present:

Phylogenetic Biology—Weissman, of Freiburg.

Embryology—Hertwig, of Berlin and Giard, of Paris.

Plant Morphology—Bower, of Glasgow and Goebel, of Munich.

Plant Physiology—Wiesner, of Vienna.

Physics—Dewar, of London and Becquerel, of Paris.

Inorganic Chemistry—Mendeleeg, of St. Petersburg, and Moissan, of Paris.

Organic Chemistry—Fittig, of Strassburg.

Physical Chemistry—Van t'Hoff, of Berlin.

Physiological Chemistry—Kossel, of Heidelberg.

A determination recently made by the State Board of Health of Illinois, which has for its object the enforcement of the rule that electricity is medicine, and its users amenable to the medical laws, is of interest to the profession. Since the time that the X-ray machine was devised and the rays themselves were found to be a valuable aid to medical science, the profession has been agitating the advisability of restricting its use to licensed members of the medical profession. It is pointed out, and with great justice, that the use of the rays in unskilled hands may result in serious injury to patients undergoing treatment, and the state board of Illinois has directed its attorney to report all cases of violation of the medical practice act that come under this head. The ruling of the board will include the use of electricity in connection with the needle or any other instrument, and when individuals are found using electricity for medical purposes, who are not licensed medical practitioners, there will be prosecutions. It is notorious that many unlicensed operators of static machines have come into a lucrative practice since the apparatus has been placed on the market. A strict adherence to the rule will even prevent manufacturers of electric machines from taking radiographs as samples of their work; the widespread use of electricity by unauthorized people should prove a wide field for work by the Illinois board.

Professional opinion on the real nature of the growth removed from the throat of the German emperor, is indicated by the two following comments. *The New York Medical Journal* in its issue of November 14, says editorially:

"It is to be recalled that Emperor Frederick's laryngeal trouble, though early pronounced malignant by the German surgeons, was almost up to the fatal termination maintained by Sir Morell Mack-

kenzie to be benign, in which contention, as the result of frequent microscopical examinations, he was constantly upheld by the renowned Virchow. Let us hope —for the sake of the world's political stability as well as out of admiration of Emperor William's personality—that his laryngeal growth is not destined to follow the course of his father's. We may well found this hope on the reflection that nature constantly strives for 'the recovery of lost perfection.'"

The London Lancet says in substance: "The clinical details are too meagre for dogmatism, but the report of the medical advisers is very clear that in the piece removed nothing justifies a suspicion of malignancy. Orth would have expressed himself more guardedly, and would not have spoken of the growth as benign if he had the least doubt. Schmidt is the surgeon who pronounced the late Emperor Frederick's condition cancerous, and he would certainly not have operated upon Emperior William without consulting other advisers if he had not felt certain the growth was innocent. The family history must cause anxiety, but the medical opinion is clearly favorable."

The Southern Surgical and Gynecological Association, in session at Atlanta, Ga., on the seventeenth of December last, elected the following officers to serve for one year: President, Dr. Floyd W. McRae, of Atlanta; first vice-president, Dr. George S. Brown, of Birmingham, Ala.; second vice-president, Dr. Shelton Horsley, of Richmond, Va.; treasurer, Dr. Charles M. Rosser, of Dallas, Tex.; secretary, Dr. W. D. Haggard, of Nashville, Tenn., who was re-elected. The next meeting of the association will be held in Birmingham, Ala., on December 13, 14 and 15, 1904. At this meeting a statue erected in memory of Dr. W. E. B. Davis, founder, secretary and last president of the association, will be unveiled.

The Wayne County Medical Society has appointed a Milk Committee to investigate the milk supply of Detroit, with authority to *certify* such milk as in their judgment is properly handled, free from adulteration, and contains a minimum number of bacteria. It is proposed to carefully inspect the herds, prescribe methods of drawing and handling the milk, and by frequent chemical and bacteriological tests to maintain a uniform high standard of purity.

The dealers are to defray the necessary expense, reimbursing themselves by the higher prices charged the consumer for certified milk. To make this certification of any value, the Committee must have absolute knowledge that every bottle bearing their seal contains no milk other than that to which they certify, else the consumer may not always get what he is paying for.

Cedar Rapids, Ia., has a handsome new Mercy hospital, dedicated on December 15 last. The new building is four stories high, with a sub-basement, and has a three-story annex of brick, with culinary department, nurses' quarters and laundry. The building is thoroughly modern, and equipped in the best possible manner for the care of one hundred patients.

It is now hoped by the authorities that the new medical laboratory of the University of Pennsylvania will be completed by the fifteenth of the present month. The building, which costs $500,000, was begun two years ago, and it was thought that it would have been ready for occupancy last spring. Labor troubles, however, have from time to time seriously delayed the work.

Health Officer Kiefer, of Detroit, has urged the school board of the city to discard the common drinking-cups in use in the public schools for some more sanitary device. The doctor reported that there had been 106 deaths from diphtheria since July 1 last, and urged the taking of some immediate steps to bring about a better condition. He suggests the adoption of drinking-fountains similar to those which were in use at the Pan-American exposition, and which are now in use in the Ann Arbor schools. With this style of fountain, no cup is required; a small stream of water rises in the air, and the thirsty one drinks directly from it. It is possible that some such device may be adopted in the Detroit schools at an early date.

Before a meeting of the Boston Society of Medical Science, held on December 15 last, Dr. Frank B. Mallory, associate professor of pathology in the Harvard Medical School, advanced his theory of the etiology of scarlet fever. His announcement is based on his discovery of what he believes to be the specific germ of scarlet fever, and he gave the results of his findings to support his theory. He announced that in the skin of four patients who had died in the eruptive stage of the disease he had found bodies which closely resembled the several developmental stages of a protozoon; these he believes to be the immediate cause of scarlet fever, although he states positively that he is far from claiming absolutely that the relation exists.

The seventh international congress of otology will be held at Bordeaux, France, from the first to the fourth of August, 1904, under the patronage of the minister of public instruction of the French republic. Several features will serve to give unusual interest to this particular session. Baron Leon de Lonval, of Nice, has given the sum of 3,000 francs to found the Lenval prize. The interest on this sum, accumulated in the interval of two sessions of the congress, will be given to the author writing the paper best setting forth the most marked progress in the practical treatment of affections of the auditory apparatus, or to the inventor of some easily portable apparatus, capable of materially improving the hearing of deaf people. The members of the jury which will make the award are: Prof. Politzer, of Vienna; Dr. Benni, of Varsovia; Dr. Gelle, of Paris; Prof. Pritchard, of London; Prof. D. B. St. John Roosa, of New York; Prof. Kircher, of Wurzburg; Prof. Grazzi, of Florence; and Prof. E. J. Moure, of Bordeaux, president of the organization committee of the congress. Those who are desirous of entering for the prize are requested to send their titles to Prof. Moure, 25 bis Cours du Jardin-Public, Bordeaux, France.

Dr. James Cahalan, of Wyandotte, Mich., died at St. Mary's Hospital, Detroit, on December 13 last, the immediate cause of death being perforation of the intestines, from an operation for the relief of which Dr. Cahalan failed to recover. He was born in Ireland in 1850 and came to this country at an early age. He was a graduate of McGill College, Montreal, in 1880, and began practice in Wyandotte. In addition to building up a lucrative practice, he entered into the general business life of Wyandotte, and was a potent factor in the life of the down-river city. He was a member of several fraternal orders and will be greatly missed by his many friends.

California intends to be "rough on rats" from now on, and a decisive campaign against the rodents will be instituted without delay. The state board of health has taken the matter up, and will kill off the nuisances as rapidly as possible.

In his comments on the leper colony at Molokai, H. I., Dr. Judson Daland, writing in the *Journal of the American Medical Association*, makes the following summing-up of his observations:

"1. The bacilus lepra is the cause of this disease.

"2. The disease is feebly contagious.

"3. The Hawaiian is peculiarly susceptible to leprosy.

"4. The Caucasian possesses a high degree of immunity.

"5. Syphilis predisposes to leprosy.

"6. Heredity is a factor of but little importance in the causation of this disease.

"7. Segregation prevents the spread of leprosy.

"8. The precise manner in which this disease is ordinarily transmitted from the sick to the well has not yet been proven.

"9. There is no cure for leprosy.

"10. Benefit may be derived from good hygiene, good food, climate, hot baths and the antiseptic treatment of ulcerative surfaces."

Dr. Walter Hulme Sawyer, of Hillsdale, gave a complimentary dinner to the Fellows of the Detroit Academy of Medicine on December 8, at the Detroit Club, covers being laid for about 30. A gracious host, a sumptuous menu of viands and liquids, and perfect good-fellowship rendered the occasion memorable. The toasts were as follows:

"The Detroit Academy of Medicine," Dr. A. N. Collins, President of the Academy.

Age a mature mellowness doth set
On the green promises of youthful heat.

"The Practitioner of the Future," Dr. Leartus Connor.

That what will come and must come,
shall come well.

"The Sunny Side of Professional Life." Dr. Wadsworth Warren.

And 'tis joy that moves the pinion
When the wheel of time goes round.

"Let's not unman each other—part at once," Dr. C. B. Burr.

Der Wein erfindet nichts, er schwatzt's nur aus.

Another interesting thing in connection with the issuance of medical "diplomas" is reported from Iowa, where a man was charged with doubtful practices in connection with ministering to patients. He produces two documents that were in the form of diplomas, but Secretary Kennedy, of the State Board, was unable to recall the institution from which either was issued. Close inspection revealed the fact that the "diplomas" were signed by students at an electric college of medicine, and further investigation revealed the fact that there was quite a mutual aid society in the state. Students at the college got up papers purporting to be diplomas, and a number of them signed them for each other. The practice has now been discontinued.

Dr. Hamilton Browning, teacher of clinical surgery at the University of Virginia hospital, is credited with having made the skin of a two months' old pig serve admirable for grafting purposes on the thigh of a patient who lost approximately 225 square inches of skin. The operation was carried out under strict asepsis, and required several days. The result is said to have been entirely satisfactory.

New York's state pharmacy board has enrolled itself with forty pharmaceutical associations throughout the country for the purpose of securing legislation prohibiting the sale of cocaine to any individual not a physician or dentist or an habitual user of the drug. The legislation to be asked for will prohibit pharmacists from giving a copy of any prescription for morphine to the patient who has it filled. This is a step in the right direction.

NEW INSTRUMENTS AND DEVICES.

Mention of new instruments and devices in this department is entirely complimentary and articles illustrated are judged on their merits.

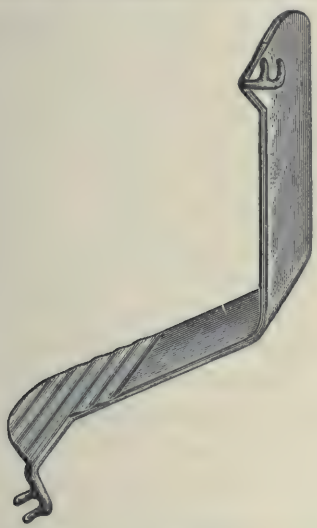
We invite manufacturers and physicians to send us matter suitable for publication under this head. A description of the device and an electrotype or half-tone with a base not greater than two and five-eighths inches should be sent.

Always mention the price of the article in question.

The management cannot undertake to return cuts unless postage for same accompanies the letter with which they are sent.

New Tongue Depressor.

This device, the design of Dr. E. Cresswell Baber, of Brighton, England, is designed for exposing the tonsils at the same time the tongue is depressed. It is

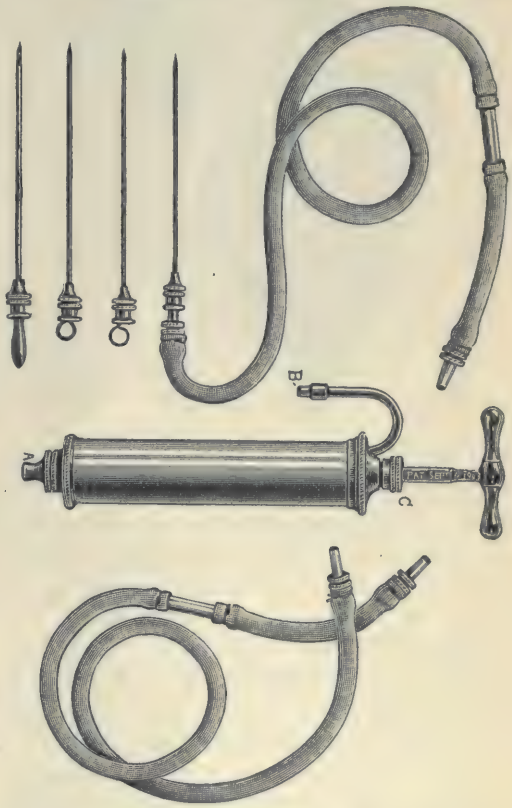


a modification of Jaenicke's tongue depressor. The device is angular in form and has at one side a small double blunt hook fixed at right angles to the blade; the instrument is reversible and can thus be used for both tonsils. The hook is engaged in the anterior faucial pillar or in the plica triangularis and drawn gently forward and outward. This action fully exposes the surface of the tonsil and the opening of the supra-tonsillar fossa. One hand is left free for the probe or other instrument, and the device may be used with or without cocaine.

These tongue depressors retail for $1.50 each.

McGaw Aspirator.

This device is made on an entirely new principle, and differs materially from other apparatus designed for the same



purpose. The stop-cock and bottle are done away with, and simplicity and compactness are secured. The contents of the cavity to be evacuated are drawn into the pump and automatically discharged into a basin or other receptacle. Its construction does not interfere with its use for injection purposes.

When packed for shipment, the aspirator is mounted on a metal rack and en-

closed in a leather case. It retails to the profession for $7.00.

Abdominal Operating Sheet, with Flaps.

This is one of the latest devices for use in abdominal surgery, and is well adapted for the purpose to which it is intended to be put. It consists of a sheet of rubber,

sixteen by eighteen inches, with six detachable flaps, three, six and eight inches wide, with a reinforcement in the center an inch wide by ten inches long. On the sheet are detachable ivory buttons, to which the flaps may be fastened.

The technique of its use is as follows: The sheet is cemented or tied over the site of operation and an incision of the required length is made through the reinforcement. Then the flaps are tucked over the edge of the wound and into the abdominal cavity, where they are held in place by retractors.

The material is excellent and the finish of the highest standard. The sheets retail for $3.00.

Metal Ethyl Chloride Tube.

This device solves some problems in the administration of ethyl chloride which have been vexing in the past. By means of it leakage and breakage are prevented, with their attendant waste, and clogging, with its attendant annoy-

ance, is prevented. The latter is secured by a patent needle-valve which securely stoppers the tube when it is not in use. There are no fine capillary tubes to become obstructed, and the anæsthetic is delivered in a fine spray instead of a stream, with resultant prompt anæsthesia. This spray may be finely regulated by the screw at the top of the tube.

The tube itself is handsomely nickel-plated, and the price of one containing 40 grammes is $1.00. The manufacturers guarantee their product and also furnish a silk-lined leather case in which the tube may be carried in a bag, for 25 cents extra. The use of ethyl chloride is well established, and its service in the treatment of syphilitic ulcers has been proved to be of great value.

Dr. Florence Huson gave a largely attended reception to meet Dr. Everitt, on the occasion of her recent visit to Detroit. "The boys" were out in force, in appreciation of the opportunity to become acquainted with one of the most progressive medical women of the country.

PROGRESS OF MEDICAL SCIENCE

Surgery and Gynaecology.

Retrodisplacements of the Uterus.

Baldy (*Am. Medicine*, December 26, 1903), lays down the general rule that retrodisplacements of the uterus are mostly coincident with other lesions, and when such is the case the symptoms almost universally come from the associated disease.

Retrodisplacements may exist for years even with prolapse of the ovaries without producing a disagreeable symptom, but let the prolapsed ovaries become irritated or the uterus infected and a train of symptoms develops in which the displaced uterus is only an incident. The treatment of retrodisplacements then, is only a misnomer; we have to treat the other conditions present which cause the symptoms, cirrhotic and prolapsed ovaries, neoplasms, adhesions and the sequellae of gonorrhœal and puerperal infection. The treatment of "retrodisplacements" thus opens the whole field of gynæcological pelvic surgery. Where in operating, it is desirable to bring forward a retro-displaced uterus (where adhesions have been broken up and would re-form) or to draw up prolapsed ovaries, the intra-abdominal shortening of the round ligaments gives the best results. It leaves the uterus still a pelvic organ and in no way interferes with pregnancy.

Pessaries, like the Alexander operation, have an extremely limited utility, since cases are so rarely met where uterine displacement stands alone as the causative factor.

The Treatment of Puerperal Sepsis.

E. E. Montgomery (*Am. Medicine*, November 7, '03), states that whereas thirty years ago obstetric hospitals were hot-beds of sepsis and accouchement at home was far safer, today the situation is reversed, for under aseptic precautions as practiced in large hospitals puerperal sepsis is almost unknown and the general practitioner provides the cases of this kind for study. It is important to differentiate between a germicidal invasion and the results of putrid intoxication, due to the decomposition of portions of placenta, membranes or blood-clots. Symptoms from the latter cause develop from five to eight days after labor, with high temperature, chills and offensive lochia, and rapidly subside after removal of the offending cause and irrigation of the uterus.

Germicidal invasion, or true sepsis, is more insidious in onset, the temperature rise being more gradual, with lochia odorless, often scanty or absent, and uterus clean.

In treatment antistrepticoccic serum has not proven uniformly of value, doubtless because the infection resulted from another germ than that for which the serum was applicable.

The rational treatment must depend upon an accurate knowledge of the course and progress of the disease. Frequently the bacterial invasion is so rapid that the infection has passed beyond the uterus before the boldest surgeon would feel justified in removing the organ.

Intravenous injections of formalin and corrosive sublimate are of doubtful value, and not devoid of actual danger of em-

bolism. In fact no single plan of treatment applies to every case, but certain general measures are applicable to all. Absolute local cleanliness, careful elimination and active supportive treatment are always indicated. High temperature should be combated by cold sponging or the cold pack, the kidneys kept active by frequent saline enemas. Peritoneal or cellular inflammation indicates vaginal drainage, pus in the uterine wall which cannot be evacuated demands hysterectomy. Phlebitis calls for absolute rest of the part, pressure above the mass of infection or, if accessible and showing softening, excision of the affected portion.

Intravenous injection of 1 per cent. saline solution is of great value in cases of profound septic infection, with or without local manifestation. The greatest success will follow the judicious husbanding of Nature's forces, the early recognition of local manifestations and the adoption of appropriate measures for their relief. F. B. T.

Causes of Failure in Gall-Stone Operations.

Wm. J. Mayo (*Journal A. M. A.* December 26, '03), with an experience based on 631 operations on the gall-bladder and bile passages, concludes that the results of such operative work are very satisfactory. The mortality is hardly more than 5 per cent. and in uncomplicated cases less than 2 per cent., only about 3 per cent. requiring a secondary operation. It is axiomatic that delay in seeking surgical relief is the direct cause of complications which often give imperfect results.

The most common cause of future symptoms is in incomplete removal of stones, but for leaving stones in the gall-bladder there is little excuse, unless the operator be inexperienced. Stones in the cystic duct frequently escape attention, the parts being deeply situated and these patients often obese. The Robson technique, with high incision and sand-bag under back, usually enables us to dislocate the liver downward and outward, exposing both the cystic and the common ducts.

In most cases of stone impacted in the cystic duct, cholecystectomy is indicated, the duct and vessels being caught with forceps below the stone, and tied, and the duct, with stone *in situ*, and gall-bladder removed from below upward, thus avoiding obscuring the field by bleeding. Secondary obstruction of the cystic duct, preventing free drainage, is one source of failure; hence, in most cases where the cystic duct has been obstructed by stone causing ulceration with resultant stricture or kinking of the channel, excision of the gall-bladder is the better surgery.

Stones in the common duct are often overlooked. The ducts should be explored by the finger before opening the gall-bladder, because after opening, the relief of tension prevents moving the stone in the dilated duct. In case of a large stone obstructing the duodenal end of the common duct, stones are often found in the hepatic duct as well as elsewhere.

Chronic pancreatis found at gall-bladder operations, necessitates long-continued drainage or a Murphy button cholecyst-enterostomy in addition to removing the stones.

Cancer may be secondary to stone formation, developing after cholecystotomy or if present being mistaken for inflammatory disease. Two rather common causes of failure to effect perfect cure which are not always avoidable are post-operative adhesions and hernia. Adhesions to the stomach and duodenum are the most annoying, but in time relief

may come as the bands stretch out. Gauze drains should be kept from contact with the stomach and duodenum by interposing a piece of rubber tissue.

Hernia may prove troublesome in the obese in drainage cases, and may sometimes be avoided if the long incision be closed and a second incision made close to the ribs, for drainage. F. B. T.

Chronic Bright's Disease.

Ramon Guiteras (*N. Y. Medical Journal*, November 7 and 14, 1903), summarizes the operative treatment of chronic Bright's, based on reports of 120 cases, as follows:

1. Chronic nephritis should not be operated on until medical treatment has proved of no avail.

2. The time for operation is when it is noticed that the process is advancing rapidly and we fear that the heart will soon become overtaxed.

3. The operation for chronic Bright's disease which has proved least dangerous and which has shown the best results, is nephropexy performed on a single movable kidney.

4. The most unfavorable cases for operation are those of diffuse nephritis.

5. Cases of general anasarca with bad heart action should not be operated on; if the heart action is good an operation performed as a *dernier ressort* may give the patients a few extra months of life, provided they survive it.

6. Where there has been a marked destructive process in the kidneys as a result of a nephritis, the operation may relieve them for a number of weeks or months, but they generally fail again and die when the new capsule begins to contract. F. B. T.

Operation for Umbilical Hernia.

Warren (*Boston Med. and Surg. Journal*, October 8, 1903), makes his incision in the median line but in the deeper layers, sews the upper and lower edges of the wound together so that union is at a right angle to the axis of the incision, hence meeting the greatest tension, which is transversely, judging from the shape of the hernial opening. He unites the peritoneum, fascia and skin separately with silk, excising a considerable portion of the subcutaneous fat. In two cases thus operated there has been but one recurrence, and the prognosis of these formerly dreaded cases now approaches that of inguinal hernias.

F. B. T.

Ophthalmology.

Blepharitis Marginalis.

Dudley S. Reynolds, Louisville, Ky. (*The American Journal of Ophthalmology*, September, 1903), divides the disease of blepharitis marginalis into three classes from a purely clinical standpoint, as follows:

Class (A) presents a slight thickening of the borders of the lids, the anterior margins are dry, the lash is thin and the cuticle between the hairs is covered by fine desquamating scales.

Class (B) presents an excoriated, glazed, red, rounded appearance of the tarsal margin and the lash entirely gone.

Class (C). In this class there are placed those cases which show an abundant accumulation of sebum matting the lashes together. When the crusts are removed an ulcerated surface is disclosed below.

The author further strongly points out the influence of errors of refraction as possible causes of this condition and looks upon the management of the various constitutional dyscrasias and departures from perfect health from which the patient may be suffering, as all-important factors in bringing about a per-

manent cure of this often distressing and intractable condition.

The treatment consists in the proper supervision of the patient's general health, the correction of errors of refraction and the local application of pure carbolic acid, liquefied by a small quantity of alcohol, to the lid margin after careful removal of all scales.

This application is repeated in ten days and in the interval yellow oxide of mercury ointment is applied.

Results are satisfactory and permanent.

There is a regrowth of the lashes.

D. M. C.

A Series of Glaucoma Cases.

George F. Fiske, Chicago, Ill. (*The American Journal of Ophthalmology*, September, 1903).

This author collates thirty-six cases of glaucoma of various types and draws certain deductions from them.

The etiology of glaucoma is lightly touched upon, chiefly to bring out the fact that it is still not well understood.

The lack of proper relation between the intra-ocular secretion and excretion is advanced as the cause of the increased tension, and the fact that most cases of glaucoma occur in the hypermetropic eye (farsighted) is also referred to, the explanation being want of proportion betweeen the size of the lens and the eyeball which contains it, in other words a small eyeball and a large lens.

The flow of lymph from the vitreous to the posterior chamber is then impeded and the pressure from behind pushes the ciliary body forward and presses the root of the iris against the cornea at the cornea-scleral junction, and thus produces the increased tension.

In view of this pathology, the author strongly urges an early iridectomy as the only rational means of relieving the condition and a perusal of the cases reported bears out this contention.

The question of operation on the other eye—which almost always eventually becomes involved, is also touched upon.

D. M. C.

Physicians are not the only class of professional men who are sometimes made the unsuspecting tools of some clever fellow who wants to get something for nothing, at the expense of the well known man who is induced to lend his name, under misapprehension, to a somewhat doubtful enterprise. A case is reported from Connecticut of a man named E. B. Tyler, who founded the "Physicians' Protective Association of Connecticut." The organization was designed to assist physicians in the collection of bills. A fee of $12.00 was charged at first, and a commission was to be given the organization for all collections made. A firm of Hartford attorneys, Holden & D'Esopo, was approached by Tyler for advice, and later on Tyler issued cards of the association, bearing the name of the firm as attorneys. The latter took strong exception to this procedure, naturally enough, when they were sought by physicians who had paid the required initiation fee, and had been unable to get resutls. Tyler could not be located by the doctors or the attorneys, and another case of the trusting professional man is on record.

The sum of $50,000 is to be expended in enlarging the Wisconsin College of Physicians and Surgeons at Milwaukee. Work will begin early in the spring, wher an addition to the present buildings will be made which will practically double the present extent of the college.

BOOK REVIEWS

Lea's Series of Medical Epitomes. Wathen's Epitome of Histology. A Manual for Students and Physicians. By John R. Wathen, A. M., M. D., Professor of Surgery, Etc., formerly Professor of Histology and Pathology, Kentucky School of Medicine, Louisville, Ky. 12 mo., 220 Pages, 114 Illustrations. Cloth, $1.00, Net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1903.

The fundamental nature of histology in its relation to the general study of medicine places it in a position of great importance. There are difficulties to be met in acquiring a good general knowledge of the subject, and Dr. Wathen's experience as a teacher has shown him not only the existence of these difficulties but the best way to overcome them. In its form his book is a compendious teaching manual. The information contained in its pages is authentic and well-arranged for the convenience of the reader, and in conjunction with one of the larger text-books on the subject gives a ready key for understanding the subject in its entirety. The essentials are carefully pointed out, and the subject of embryology is so introduced as to materially aid the reader in grasping embryology and pathology later on. There is considerable space devoted to methods of preparing tissues for examination, with directions for preparing stains, and there are numerous good illustrations, which should prove of immense value to the student.

This series is closely edited, and the series of questions at the end of each division of the text is an excellent feature, serving to fix the most important points more firmly in the mind. Like all the Lea productions, the book is well published, and at its low price ought to meet with very general commendation.

Progressive Medicine, Vol. IV, December, 1903. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely Bound in Cloth, 434 Pages, 46 Illustrations. Lea Brothers & Co. Publishers, Philadelphia and New York.

This book completes the fourth year of publication for this justly successful series on the world's progress in medicine. It makes a fitting end to one of the most important years, containing, as it does, some of the most important articles yet published. The contribution by Hemmeter on diseases of the digestive tract is in reality a monograph, taking up the physiology of digestion as it has been investigated by recent authorities, like Pawlow. Hemmeter has also paid much attention to diseases of the pancrease, a subject which could scarcely fail to excite attention, in view of the interest this topic has recently attracted. Dr. J. C. Bloodgood, of Johns Hopkins, takes up the general subject of anæsthesia, and he has some important things to say on the subject of the X-ray therapy of tumors. Dr. William T. Belfield contributes an able article on genito-urinary diseases, particularly on hypertrophic conditions of the prostate.

Dr. John Rose Bradford, of London writes interestingly of the surgical treatment of Bright's disease and there is a good paper by Dr. Charles Harrington, of Harvard, on the question of bovine and human tuberculosis. Dr. Landis, the assistant editor of the series, gives a practical therapeutic referendum. This includes not only a tabulation of the drugs most recently introduced to the profession, with their uses, but also full com-

ment on the physiological action and clinical uses of the older remedies.

The publishers make the announcement that with the new year of 1904 the annual subscription price of "Progressive Medicine" will be reduced from $10 to $6, and that the heavy cloth binding will be discontinued. Each volume will contain 300 pages and will be handsomely illustrated as usual. The same editorial management will be continued, and the present corps of contributors will be retained. We can safely predict a brilliant future for the series.

Lea's Series of Medical Epitomes. Organic and Physiologic Chemistry. A Manual for Students and Practitioners. By Alexius McGlannan, M. D., of the College of Physicians and Surgeons, Baltimore, Md. Series Illustrated with Nine Engravings. Pages, 233. Price Cloth, $1.00. Lea Brothers & Co., Publishers, Philadelphia and New York.

This little book, uniform with the volume on inorganic chemistry and physics which was reviewed in the November issue, ably carries on the work begun by Dr. McGlannan. With a science of so much detail as that involved in chemistry, it is an extremely difficult matter to write intelligibly without being verbose; and verbosity is naturally quite out of place in books of the character of those in this series. So far as we are able to judge, the author has made excellent use of the space at his command. He has confined himself strictly to matters that pertain especially to medical work, and by means of tables and abbreviations, together with a logically conceived and executed system, has placed a wealth of information before the careful reader. He gives out no abstruse theories, and where there is controversy on certain points, he has simply written down the one that seems best to him.

The two divisions of the book contain much valuable information, and even more valuable suggestions, regarding manufacturing and so on. The system of quiz questions at the end of each chapter is retained, as it certainly should be, and the book as a whole should fill an important place in the library of the man who reads for the greatest possible amount of reliable information in the smallest possible space.

A Compend of Pathology, General and Special. A Student's Manual in One Volume. By Alfred Edward Thayer, M. D., Professor of Pathology, University of Texas. Second Edition, Containing 131 Illustrations. Pages, 692. Price, Bound in Limp Leather, $2.50. P. Blakiston's Son & Co., Publishers, 1012 Walnut St., Philadelphia, Pa., 1903.

To place the material necessary for a general and special consideration of the subject of pathology in one comparatively small volume that can be sold at a reasonably small price is a feat which may well command our admiration, when successfully accomplished. Dr. Thayer has succeeded in writing a most comprehensive book, handy in size and style, well illustrated, and containing the meat of the matter in easily found and readily assimilable form. The thanks of the students of medicine are due him, and the promptness with which the first edition of the book was exhausted by the demand is evidence that students were not backward in expressing their commendation in the most material manner. Originally the matter was presented in two volumes, but in the present form a chapter on the nrevous system has been added, as well as several new illustrations, and the whole published in one book.

The division of the work into two main parts, general and special, serves to clear the way for the student, who is led logi-

cally from one subject to another, from the general to the particular, and always without being confronted with the theories of a number of men, perhaps all well known and all at variance. Indeed, Dr. Thayer purposely avoids reference to authorities, not in the belief that he "knows it all, but with the idea that such references, constantly made, are confusing. It is not at all a bad plan. The book is published in true Blakiston style—good paper, good printing, good illustration and good binding. It is a thoroughly good book.

Compend of Diseases of the Ear, Nose and Throat. By John Johnson Kyle, B. S., M. D., Lecturer on Otology Rhinology and Laryngology, and Assistant to the Chair of Surgical Pathology in the Medical College of Indiana, Etc., Etc., Etc. With 85 Illustrations. Pages, 271. Price, Cloth, 80 Cents Net. P. Blakiston's Son & Co., Publishers, 1012 Walnut Street, Philadelphia, Pa.

In the course of a somewhat extended practice in reviewing the quiz-compends of Blakiston, we have had many occasions to comment at some length on their many good qualities. The volume at present under consideration is a worthy member of the family, and has all the general good traits of books in this series. In other words, it is compact, well written, within its limits sufficiently complete, and well published. Dr. Kyle has had a wide opportunity for study and practice in this important branch of medical work, and he offers to the student and the general practitioner alike an opportunity to gather at first sight a valuable fund of reliable information along the lines in which he is interested. After a brief but comprehensive view of the anatomy of the parts under discussion, the abnormal conditions that affect them are glanced at, and there is interesting reading, both on treatment and on the mechanical aids to this work that have been so numerously invented by specialists. These are illustrated, and the majority of the illustrations are well chosen for the work they are called upon to do.

The really low price of the book, when its contents are considered, should be a potent factor in securing for it a large sale, not only among general practitioners, but also among the ranks of the specialists themselves.

The Practical Care of the Baby. By Theron Wendell Kilmer, M. D., Associate Professor of Diseases of Children in the New York School of Clinical Medicine, Etc., Etc. With sixty-eight Illustrations. Pages, 151. Price, Cloth, $1.00 Net. F. A. Davis Co., Publishers, 1914-1916 Cherry St., Philadelphia, Pa

Every young mother who has brought up her child herself is thoroughly familiar, no doubt, with the vast amount of advice which she secures gratis and unsolicited, from every woman of her acquaintance who has had even a remote connection with a new-comer into this world of sorrows. Here is some advice in which she can put confidence. It costs little, and many a physician will welcome a book of this kind, which he can put into the hand of his obstetrical cases, knowing that the information contained therein is based on scientific knowledge. It is a very convenient book, full of information given in simple language, easily understood.

It is well illustrated, but we question the advisability of using dolls for subjects of photographs. The illustration of a nurse, dressed in orthodox fashion and holding the rubber stem of a correct fountain syringe to the anus of a doll is not calculated to inspire much of anything but amusement in the observer. Babies are better for illustrations in a book bearing on the care of babies themselves. Outside of this feature, the use of which

is certainly open to debate, the book is well published, like all of the Davis company's productions. It should find a ready sale.

A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa. By George Whitfield Overall, A. B., M. D., Formerly Professor of Physiology in the Memphis Hospital Medical College. Pages, 207. Price, Cloth, $2.00. Rowe Publishing Co., 1312-1334 East Washington St., Chicago, Ill., Publishers.

Conservatism in the treatment of the affections of the prostate gland and its adnexa is the key-note of this little book. While the author does not deny that surgical interference is sometimes the only possible procedure for the relief of neglected cases, he lays considerable stress on the excellent results that have been obtained through the medium of electricity and that of medicine. The functions of the prostate and its anatomy are carefully outlined, and the text is supplemented by a number of illustrations which are of great service in elucidation.

There are thirty-five clinical cases reported in the book, and their treatment is such as to make the reading of the text on this head very valuable. There is useful comment on the subject of neruroses of the prostate which should commend itself to every thinking practitioner, and perhaps especially to the alienist.

It has been decided to hold an international congress on tuberculosis at St. Louis, Mo., under the auspices of the Universal Exposition, St. Louis, and of the American Congress of Tuberculosis on August 3, 4 and 5, 1904. The congress will be open to the legal, medical and all other professions, judges, philanthropists scientists, statesmen, legislators, and all citizens interested in the subject.

The Doctor's Auto.*

The auto gives the doctor joy
And brings him many dollars,
But all the profits go to waste
In laundering new colars.

The horse goes out to pasture,
The wheel goes on the dump,
'Till both are resurrected,
When the auto takes a jump.

The steam machine has energy,
The gasoline has power;
But each is very prone to
Enjoy the idle hour.

While the doctor cranks the handle,
Pulls the plug and sparks the sparker,
Cools the cooler, shakes the mixer,
All the while it's getting darker.

And the doctor fumes and sizzles,
And swears by all that's good,
That he's bust the darned old engine—
And very probably he would.

Then the unexpected happens
And the cussed critter goes,
For his language cleans the mixer,
Though just how, nobody knows.

Then the poetry of motion,
As the streets you're speeding by—
With the wind a-whistling 'round you
And a cinder in each eye.

Then the horses take the sidewalk
And pedestrians climb the trees;
And the "copper" takes your number,
And the Justice says, "Five, please."

For the DYING PATIENT racket
'Pears to have seen better days,
'Cause the Health Board records fail to
Bear out what the doctor says.

For if half the truth were spoken,
(Here the truth we may confess)
The doctor speeds his auto,
So he can get home and dress.

For the evening medics' meeting,
And of course he needs a bath,
And he HAS to go like blazes
Lest the sun set on his wrath.

Still the fellows seem to like 'em,
P'raps because they patience teach,
And the man that keeps his temper
Merits anything in reach.

On the whole, the auto ought to
Be a priceless boon, indeed,
If 'twould auto as it ought to,
When it ought to show its speed.

But the auto may not auto
When it ought to, as it should;
And I'm sure you'll hardly blame me,
Who sold mine for kindling-wood.

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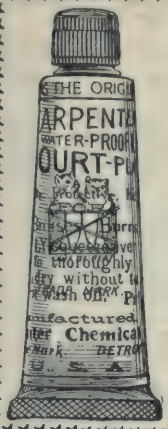

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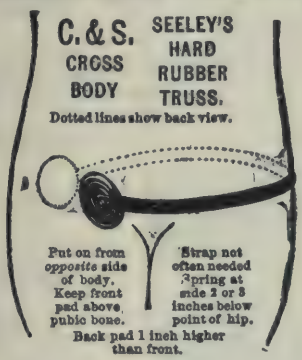
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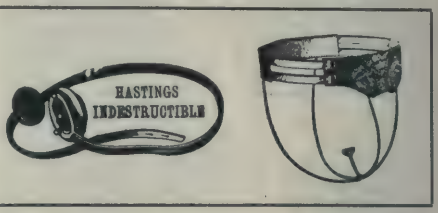

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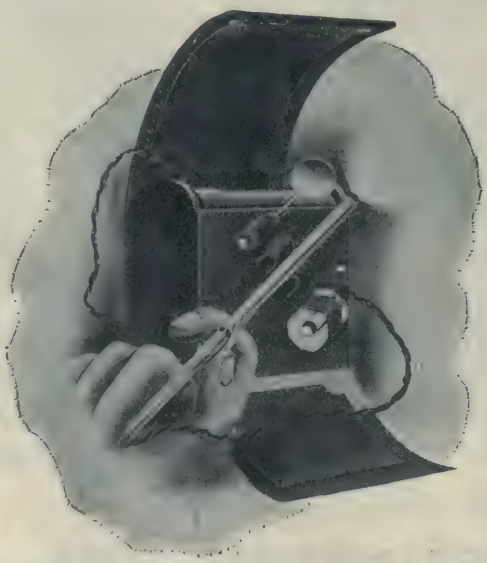

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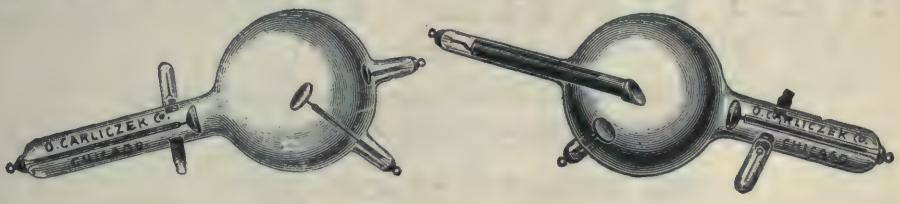

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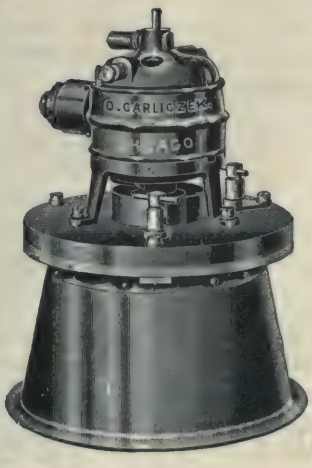

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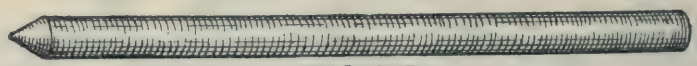

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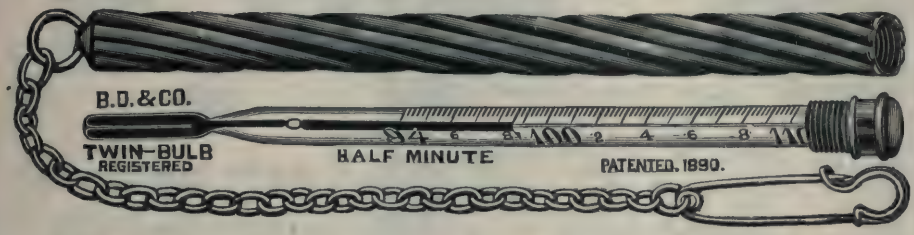

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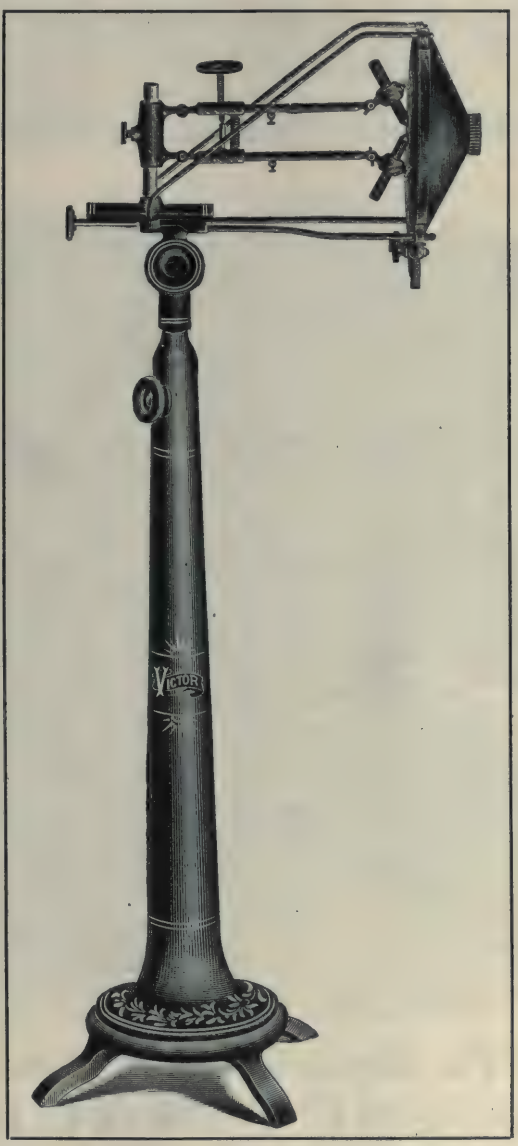

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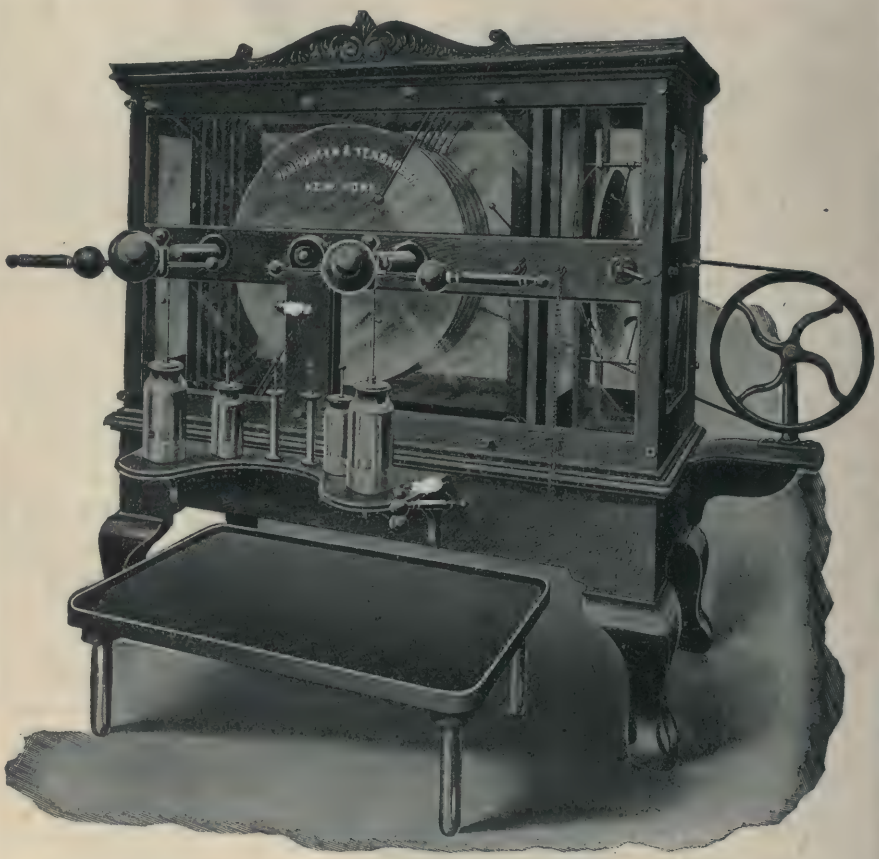

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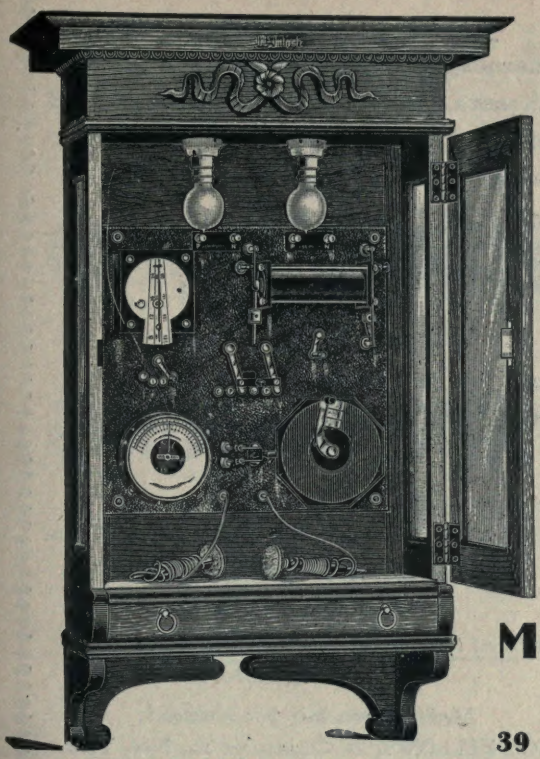

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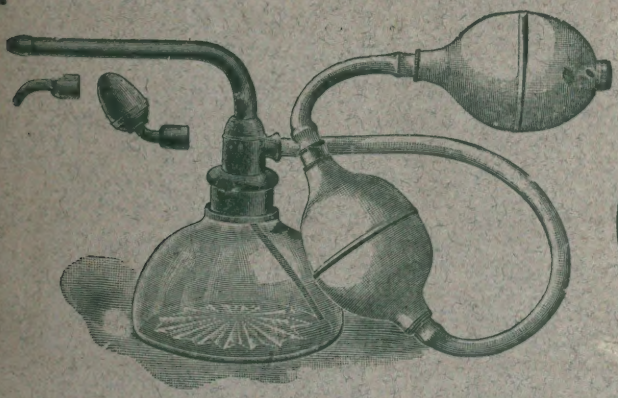

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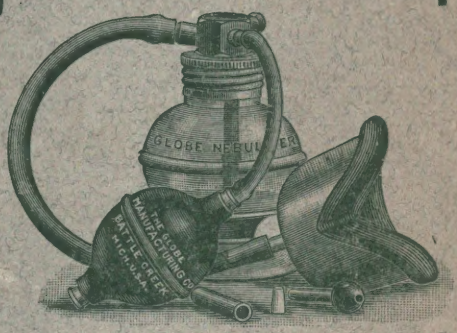

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